# Valedictory Address

ON

# OPINION THE SALT OF FACT.

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GENTLEMEN,—When I accepted the honour of becoming your President I had thought from what I had heard that the Harveian was one of those nice "you-need-not-dress-for-dinner" sort of societies that allows its retiring officers to disappear by a euthanasia of music and tobacco unheard of and unsung. But when not long ago I unearthed my copy of the laws of our society I found to my discomfort that a part of your President's *duty* was to give a retiring address. I had, however, been reading Keats and I took happiness from the thought that he had said: "It appears to me that any man may, like the spider, spin from his own inwards his own airy citadel. The points of leaves and twigs on which the spider begins her work are few and she fills the air with a beautiful circuiting." The points of leaves and twigs on which I begin my work are decidedly few. I find them stated thus in our laws: "At the annual meeting in January the President shall deliver an address on the objects of the society and the best means of accomplishing them." Never have I read a sentence which filled me with more blank dismay. Its uncompromising decision leaves no opening for strategy. Front and flank seem equally impregnable. But as I sat in the plenitude of my despair this thought came to me: that a society which has reached its sixty-eighth session has already found out its objects and also the best means of accomplishing them, and that I may therefore reconnoitre the past perhaps to more purpose than prospect the future. And this is what I have decided to do.

It is often said in societies of this kind that our object is to obtain facts and not opinions. But, as it happens, I am very fond of opinions, without in the least wishing to decry the more positive value of facts. From my present point of view a fact is dead. While of opinion I would contend, as has been finely said, that promise touches us as finished success can never do. At any rate, as I have sat here listening to the papers which have been read before the society during the year, many have been the interesting points which have crowded into my mind as this reader and that has touched upon the promise of the future. Take the first paper that occupied us by Mr. Mansell Moullin—the Treatment of Malignant Growths by Toxins. It was a most interesting paper, but even so it was so most of all by what it suggested.

I remember that five-and-twenty years ago there was a discussion on Cancer at the Pathological Society[1] which resolved itself into a discussion on, Was it a constitutional or local disease?—did it come, that is to say, from something in the individual or from something absolutely in the part itself and outside him? Sir James Paget maintaining that it was a constitutional disease relied much on the argument that its recurrence after complete excision is almost constant or that not more than once in 500 cases does it fail to recur. Sir James Paget very justly says: "Suppose a man to have performed 500 vivisections to determine such a point as this—whether a certain mass within the body is altogether local or for the most part constitutional—and suppose he has found that after 500 vivisections he has got but one single exception to the rule that the growth re-appears after removal, he would be a bold man if he repeated his vivisections—he would surely be content with his results." Yes, it is absolutely certain that force is no remedy for malignant growths and yet twenty-five years have gone by and we are still as busy as ever removing cancers and ever and ever more early and more completely and still the experiment fails. And so shall we continue to do, for hope springs eternal in the human breast and the enthusiasm of surgery must never be damped by the recognition of defeat. Youthful surgery sins, not by omission; but surgery (not surgeons mind) grey-haired and old would leave us poor indeed.

Yes, we still go on removing cancers, but, as Dr. Moxon said in the same discussion, constitutional and local are not antagonistic terms; and this—although I daresay not in his sense—I have always held myself. I certainly cannot conceive that if a disease be purely local that it could fail to be completely eradicated in a definite proportion of cases, to take the one argument alone, for one cannot do more than touch upon such a question here; and yet there can be no doubt that the disease does begin locally and generalises from the local swelling and therefore I myself should certainly always be an advocate for attempts at a local cure. But I am equally unable to believe that the local element is so absolutely local as a foreign germ would make it or that excision will ever prove alone its cure. I have always thought that a something must be inherited that allows of an irregular distribution or correlation of energy between one part and another and that thus growth becomes substituted for function; and no doubt this is no sudden thing; it is a slow process of evolution in the cell elements of this part or of that—and thus I can understand why the surgeon fails to attain his aim. The longer I live the more I become impressed with the reality of an hereditary proclivity to cancer and so thinking it appears to me that whatever local treatment is suggested should deal not only, perhaps not so much, with the complete excision of the disease as with those unnatural explosions of energy which bring about the malady.

Thus I think that there have been of late years three distinctly promising and rational methods of treatment proposed. I wish I could add that they had proved to be successful. Some time ago my friend Dr. Inglis Parsons read a paper before this society on the Treatment of Malignant Growths by Currents of High Electrical Energy; he went into the matter in a thoroughly scientific and philosophic manner. And he believed that he might by this means produce some widespread modification of the nutrition of the part and thus make the disease wither. He demonstrated, indeed, that organic tissue can be disintegrated by currents at high pressure, but they failed, as Dr. Inglis Parsons thinks, because of the different resistance offered to the current by the diseased and healthy tissues through which the needles pass. I believe this to have been, nevertheless, a distinctly rational and promising hazard. So also seems the proposal under certain circumstances for the removal of organs that condition, or at any rate are associated with, the function of the diseased part—the ovary for cancer of the mamma and the testis in cancer of the prostate—of which we heard something at the reading of the paper that has formed the text of these remarks. This also fulfils my idea of a natural method of attacking cancer and it is possible that it fails just where so many methods of treatment fail in medicine and surgery, because in our anxiety to be neither too soon (that is, meddlesome) nor yet too late one is unable to act early enough. But there must be many cases where the growth is not subject to any known controlling power or has no known correlative—cancer of the intestines, for instance—and therefore from one cause or another, at any rate, these measures fail or are inapplicable. For such it is rational, although desperate, to hit out all round so to speak and this has been attempted by the use of a virulent erysipelas toxin. I am afraid so far, as Mr. Mansell Moullin's lucid *résumé* of the history of this method told us, that the procedure as practised with virulent toxin is doomed to a similar fate as its predecessors. It is certainly a measure I should hesitate to advise, the risk appears to be so considerable. And yet may there not be in the idea a stepping-stone to more perfect things? At any rate, I seem to see in it that intuitive feeling after truth which was perhaps expressed in times gone by in the belief that the animal economy does not readily allow two masterful diseases to run concurrently. And surely there is a good deal in this. I see many a one who is asthmatic whose great dread is that of weak lungs—meaning consumption. People do not think nearly so badly of asthma and it consequently conveys a good deal of comfort to a man's mind to be assured—as I believe in the truth of this old doctrine—that his future risks are not those of the consumptive. This was, of course, taught years ago by Rokitansky, but I have heard it disputed of late. All the same I think it is largely true. I do not mean to say that an asthmatic never becomes tuberculous, but I do say that the

[1] Transactions of the Pathological Society of London, vol. xxv., p. 287.

occurrence is rare; and given a case of heart disease which involves more or less pulmonary stasis, or pure spasmodic asthma, or primary bronchitis and emphysema, the chances are decidedly against that person having anything of the nature of consumption.

Then how seldom it is that two specific fevers run together. One may sneak in when some other has left the door open, but two together—no. Again, I know an old gentleman who was apparently incessantly and incurably giddy. At any rate, his trouble was of years' standing and he had long given up all hope of relief by drugs; he had tried too many without avail. He had a very severe attack of double pneumonia which all but cost him his life and he lost his vertigo and it has not returned. The old theory of counter-irritation was based, I suppose, upon some such idea. Years ago it used to be the practice (perhaps it is now) to rub the surface of buboes vigorously with stick nitrate of silver; the counter-irritation of joints is certainly still current practice. How do these act? Is it not that the local conditions called into play by the traumatic inflammation are antagonistic to the free play of the pre-existing disease and this in several ways that it would be tedious to mention? And in cancers, I take it, to cure them we have to alter in some way the local conditions which gave rise to the exuberant growth of the cells. (And, by the way, are cancers always the same? Is the cancer which breaks out in A the same vitally and physiologically as the like histological structure when it occurs in B?) It is very rare indeed to find two separate primary sources of malignant disease in the body. I have once or twice seen cancer of the breast and cancer of the stomach but the occurrence is a curisity. One has therefore to attack some local inveteracy. And the injecting virulent erysipelas toxin might well, I think, exercise a sort of Star Chamber influence upon any such revolutionary quarter if only it could be made to distinguish between the righteous and the wicked. This attribute of selectiveness is what we want and which is so difficult to find.

Another paper which raised a very interesting question was that of Dr. Armstrong on Dilatation of the Stomach. I will not, however, dwell long on this point as I have elsewhere said something already on the matter. The subject was treated of in the paper and discussed both ably and temperately. But I cannot help saying that outside our society I hear talk of dilatation of the stomach much more often than it seems to me to occur. What is common is what now goes by the name of proptosis, and which is a condition that in the great majority of cases does not call for treatment, for it causes no symptoms. For take, say, 100 people, and examine them one after the other at varying times after their morning meal. I venture to say that you will find at least several amongst them who will as late as 12 or 12.30 give to physical examination a splashing stomach coming more or less to the umbilicus, sometimes lower. And yet they will complain of no gastric symptoms whatever. They may not be the robustest of mankind—they will probably be nervous or used up in some way. But they are not cases of gastric disease. Gastric catarrh is the term I find often applied to these cases, but I look upon catarrh as a very dangerous word. It has a likeness to golf in that when once you take to it you become its slave. Perhaps I ought to explain that as regards golf this is not a fact observed by myself, but one stated to me by others, and the Lunacy Commissioners, you will remember, never allow anyone to be deprived of his liberty of action on this class of evidence. So the golfers amongst us need not take up their clubs against me.

I must confess to being unable for the most part to admit the existence of disease that shows no symptoms. Proptosed stomachs and the *fin-de-siècle* dilatation of the heart which one hears so much about from the general public will not live in the nomenclature of disease for that very reason. Dilatation of the stomach and dilatation of the heart are very serious diseases, but they give definite symptoms which suggest their seriousness. But I am not exaggerating one whit when I say that at the present day I am frequently seeing people who are frightened out of their very lives by fear that they have dilated heart when that organ is perfectly well able to take care of itself.

There is a saying, I believe, that a properly regulated domestic establishment should have its own laundry, and therefore as we are all very sweetly sociable here to-night we will do a little washing by making amongst us this whispering confession, that medicine, because it is so noble a profession, is terribly prone to be run away with by a fad. It is impossible to have a right judgment in all things and we are so anxious to cure our patients that we go "tally ho'ing" after many a false scent, and I fancy that if the history of medicine be written in anything less perishable than the sands of time that by-and-by it will stand recorded that stomachs and hearts (possibly duodenums also) furnish conspicuous evidence of the fact. But I have linked these two—heart and stomach—together for the purpose of saying that in the case of each I believe there is a dilatation which runs a parallel course and the course is not what is usually taught. It is commonly held, and of course there is much ground for holding, that the dilatation of each is due to the inefficiency of the muscular walls to drive the contents through narrow orifices; that the work being too much, hypertrophy of the muscle is brought about, and that not being enough the walls of the cavity dilate. Dilatation is the *cause* therefore not the *result* of an hypertrophy which has shot its bolt and failed. In the case of the stomach it is assumed that the pylorus is strictured or kinked or displaced in some way so as to produce an obstruction. I doubt whether there is any evidence sufficient to prove this in the majority of cases. There are a certain number of cases of fibrous cancer of the pylorus in which it is so no doubt. There are, perhaps, a few cases—very few—where a fibrous thickening of the pylorus exists. But it is my strong conviction that this will not explain all the cases of true dilatation which are met with and that the real explanation of some is a primary, passive dilatation from chronic indigestion or defective innervation in the first place with hypertrophy as an attempt to remedy the evil in the second place. I believe a similar sequence of events may occur in the heart, and therefore although I have gently railed at, and think we ought to be very careful to avoid, taking illiberal views of the vital capacity and resistance of our organs, muscular or other, to avoid being morbid in our estimates of what is disease, I yet think that we must be careful in the matter of dilatation of important muscular cavities not to rush to the other extreme and regard as nothing what may be early evidences of serious organic change.

And now to one other point. I was very much interested to hear Dr. Sidney Phillips (in his paper on the Treatment of Typhoid Fever) give utterance to the opinion that that disease has changed its type. In the Harveian Lectures which I had the honour of delivering before the society in 1891 I ventured, notwithstanding the almost scorn with which such an idea had been received in Sir Thomas Watson's day, to affirm that diseases must change their type. I took then more especially the *a priori* argument that man is in large measure the product of his environment; that as that changes, as change it must, under the varying conditions compelled by his needs and his rapidly increasing progeny, so must disease change. And I have no doubt that that argument is sound. I attach very little weight to the usual reply that there is no evidence of change—the pneumonia of years gone by is the pneumonia of to-day, and so on—because the changes which occur are insensible. We live in—we are a part of—a general dissolving view. We change ourselves, but so insensibly that had we no means of seeing ourselves in looking-glasses and photographs we should complacently affirm that we were still the same as we were thirty, forty, or fifty years ago. And so we should continue to go on until, in fact, the day when the keepers of the house tremble, and the grinders cease because they are few, and those who look out of the windows be darkened, because man goeth to his long home. Nor do those in daily contact with us see any such glaring change as periodical photographs make ridiculously and painfully plain. The same we are, yet not the same. One may see this also in a more subtle manner by taking some of the novels of the past. Take "Tom Jones" or Miss Burney's "Evelina"—I may even come nearer down and say take even Dickens or Thackeray—and though you may delight in them each and all as giving an insight into the life of their day and generation as recording the play of human passion and emotion common to every age there is much in them which is quite uncongenial and out of touch with the feeling and the interests of the present time. I think it is the same with many old pictures. I go and see the Rembrandts at Burlington House and hear men say, "Ah, we cannot paint like that now." And then I hear that the art of making pigments is lost or that the world's virility in forging genius flags, and that great painters, great poets, great anything, are all of the past. I do not believe a word of it. The explanation to my mind lies in this: that we live in another

world altogether, born and bred under altogether different ideas, different schooling of light and shade. The great painters of the past painted their day—they could paint no other—and our painters paint their day—they can do naught else. It is impossible to step across the ages. No plagiarism—if I may so speak of Shakespeare, or Swift, or Fielding, or Burney, or Dickens, or Thackeray—can ever be written, and if it could it would appeal to ears unfitted to receive it and appeal in vain. Two distant periods can never be other than contrasts.

I stood but yesterday on the edge of cliffs where I knew the sea to be advancing and the coast line to be slowly altering in response. But what could I, the wastrel of a moment, see of the change as it passed? Practically nothing. The coarse outlines must long continue apparently the same—it is the fine details that the insensible alterations of its environment must necessarily work upon and modify.

> "But we that are not all,
> As parts can see but parts, now this, now that,
> And live perforce from thought to thought, and make
> The act a phantom of succession."

If in the course of years even our very thought changes all our modes of expressing thought will change too, and language and painting and so forth are evidences thereto. And if so, shall disease, which also, alas, is one of the languages of nature, fail in this? It cannot be.

But with disease it is most difficult to show the contrast because, as I have said, it grows up with us, moulds itself insensibly to our shape, changes insensibly as we change, and thus the pneumonia of a day gone by seems to be very like the pneumonia that we have to deal with now. Then, too, we cannot see the past, and it is so difficult to describe disease. Very few people indeed have the power to do it, and thus the records left behind are very different from the experience of the man who actually handled the disease. So it was, and so it is. What would we not give to have the whole experience, say, of men like Gull and Jenner laid bare before us? Why, the miracle of the loaves and fishes would be shown to be possible even now—for I venture to maintain that there would be many basketfuls of crumbs of insight into disease which would remain over and above the five loaves and two fishes of broad outline with which for the moment we should satisfy our hunger—insights into diseases, many of which in all probability the possessors of the experience had not themselves obtained, but which other minds would light upon with a swift certainty of penetration. But these are all lost to us. But as evidence in favour of change, see what we have done for disease, to mention only a few of many facts. When I was engaged in making necropsies at Guy's Hospital, say, from 1873 to 1883, there was no disease commoner than pyæmia. Such cases would turn up day after day, sometimes two or three in a day. Some operation had been performed, suppuration had occurred in the wound, the veins therefore contained pus, and the lungs of the patient were riddled with abscesses. That disease, of which I have somewhere a large bundle of notes of cases, is practically expunged from our nosology and the medical student of to-day I daresay has never seen such a case.

Typhus fever is another disease that is practically a thing of the past. The last epidemic of the disease in London of any note was in 1869, thirty years ago, when I was house physician at Guy's Hospital. The diseases which may at any rate react prejudicially on the human economy and thus favour the attack of other maladies are being done away with; towns and houses are being made more healthy, the preparation of food is more carefully superintended, living is made more easy to the lower classes, relaxation and recreation are being taken in larger proportions. Surely all these things, by bracing up the health of the subject, must tend to modify the reactions of disease by increasing the resistance to their natural course and even to their very inception. By boiling our water and milk and looking after our sewerage we are doing something to starve the typhoid bacillis of its food. Sir A. Lawes, by doing away with the rotation of crops and cultivating turnips in one field year after year without manure, was enabled to reduce his turnips to radishes, so far as size went. Is there any reason to doubt that the same sort of modification will happen in the case of the starved bacillus of typhoid fever, and if so what would that be but a modification or change of type? I agree *in toto* with what Dr. Sidney Phillips said to us that "typhoid fever tends to vary with the conditions associated with its origin and though such variations are slight individually and gradual in evidence in their sum they suffice in time to produce a considerable modification of the original disease. There is considerable difference in the symptoms described fifty or even twenty-five years ago and those occurring to-day. The difference is marked in the lessened severity of the abdominal symptoms; the tongue is now often moist throughout the disease instead of dry and baked; tympanites and diarrhœa are much less pronounced; probably also hæmorrhage and perforation are less common; tremors and dilatation of pupils are now uncommon; and instead of noisy, active delirium the mind is often clear throughout even fatal cases. The typhoid state with the patient sunk deep in bed, unable to move himself and unconscious or semi-conscious for days, is now quite exceptional; relapses are less frequent, and yet the mortality is not lessened." Dr. Phillips attributes this "to a lessened tendency to ulceration of the intestines, and argues that if so much variation of type has taken place in a quarter of a century, much more has gone on in fifty years, and that where conditions existed such as made typhus rife the distinctive features of typhoid may well have been affected, and that in this is possibly to be found the explanation that the separate diseases were regarded as one."[2]

There are other diseases which change their type perhaps by exhausting the soil by immunisation or otherwise, and of this class I must mention scarlet fever. I seldom see a case of scarlet fever now of anything like the severity which occurred often thirty years ago; I am by no means sure that it has been as frequent of late as it used to be, but I will not make much of that, because epidemic diseases have a trick of lying dormant for a time and recrudescing. But as regards severity I have made a point of inquiring in the last few months of many medical men, and all have without any qualification agreed with me that for the most part it is now quite a mild disease. This may be because, as in typhoid fever, pyæmia, and so forth, we are preventing the disease by boiling our milk and water and isolating the cases as they occur. But in such a widely distributed disease as this has been for now many years, and a disease, moreover, that in various grades of severity yet seems even in the mildest form to have the power of protecting the subject from future attacks, it is possible that a large proportion of the population is now partially immune and that in this way the disease has gradually been undergoing modification towards its ultimate disappearance. I would even take diphtheria as some evidence of the same tendency to transition. Now diphtheria is much more widely spread than it used to be and I do not know that one can say that it is less deadly, but I am much inclined to think one can say this, that its type is not exactly the same as it was years ago. Putrid sore-throat seems to me the term that best characterised the disease then, membranous pharyngitis and laryngitis that which best applies to it now. These carrion throats which one used to see are, I think, seldom met with now, and while there may possibly be more inveteracy about the formation of membrane there is yet, if I may so speak, evidently now something of indolence in the process. And now, in addition to any modifying influence of slow operation such as I speak of, we have the common resort on all sides to antitoxin; this, again, in greatly increased measure, if it sustains its reputation, as it seems likely to do, must work in the same direction.

Well, then, of course no one can talk nowadays of any disease without dragging in gout. He is a capital guest at every party, he has so much conversation in him. So I do not like to leave it out. And, indeed, I cannot but think that gout is a witness also to my theory of to-night. And in this direction—that whereas true gout of the foot or hand is surely less common than it used to be as a disease it appears to have become distributed and now appears in this one and in that in a number of minor ailments. Gouty dyspepsia, gouty bronchitis, and tracheitis, gouty nodulations about the phalanges, gouty affections of the skin, gouty pains here and there, and so on. It may well be discussed whether many of these ailments are really what they are supposed to be, but a common consensus assigns them indubitably to gout and if so I think we may fairly say that from some cause or other the disease is undergoing modification and is now distributed in such a manner as to make it often not easy to distinguish. It appears, in fact, to be undergoing in the body social a

[2] Abstract from Paper on the Treatment of Typhoid Fever, by Dr. Sidney Phillips, Brit. Med. Jour., Nov. 12th, 1898.

similar modification to what it is known to undergo in the body individual, for it needs no saying here that as gout grows old in the individual so it loses its explosive character and is replaced by something that wanders fitfully from one part to another and is less easily controlled by the treatment that once was successful.

A good deal of point, with reference to change of type, was made in former times of pneumonia, some holding that it proved the case against change of type, others that it did exactly the opposite. I incline to throw in my lot with those, if there be any such, who think that the disease is slowly changing and in the direction in which of old it was contended that it was changing—viz., by being less violent in its attack. Pneumonia is a very common disease, but it is not common to see those furious outbursts which I think I saw more often twenty years ago. I very seldom see now those few days of acute pyrexia and the sudden crisis and the patient is well. It has become a disease which drags on ten or twelve days or more, is more inclined to spread from one part of the lung to others in an insidious way, and then, too, is it not now more prone to produce empyema than it used to do? Mind, I am not stating these thing as facts. I am avowedly giving you only my own impressions. I am making it my business to set you thinking, because, as I have said, this is one of the main objects of our society. But we know more of pneumonia than we used to do; we know now that it is associated with the growth of the pneumococcus. And we also know that there is many an empyema which appears to be only an empyema that contains the same organisms in the fluid. We know a further fact which seems to me to be of importance. Pneumonia is a very common associate or result of influenza and I have had the expectoration examined in several of these cases in the expectation of finding the special influenza bacillus, but no, the report has always been that the pneumococcus was present. So has it been in influenzal empyema. Now there can be no doubt, I suppose, that the pneumonia associated with influenza is a peculiar one. We all know how often it creeps about the lungs and will not clear up and there is no crisis, yet it is associated with just the same micro-organism as what I may perhaps call the old-fashioned croupous pneumonia. This seems to me to be a bit of evidence which goes to show that acute pneumonia is modified by its reaction with other diseases, that it is indebted to the open door left by influenza—and if by one disease why not by others?—for some of its power for harm, and that therefore by the increase in our knowledge and the more thorough application of hygienic measures a further attenuation or destruction of its influence may be compassed.

I have only time to mention one other disease and that shall be appendicitis which in my opinion has become an appallingly common disease of late years. Now this again is an *obiter dictum*. I am unable to give much proof but thinking matters over as dispassionately as I can I cannot think that it was met with years ago in anything like the frequency that it is met with now. I know, of course, that it will be said that it passed unrecognised and that it is like many another disease: when we begin to look for it we find it much more often than we supposed. But I cannot admit this so well for appendicitis as I could for many another disease. Because it is such a serious malady attended with acute symptoms and, moreover, it is a disease which was well known and recognised certainly before I entered the profession of medicine. I cannot think that within my time the disease has been smuggled away as simple peritonitis or tuberculous peritonitis. And I believe that for some reason or other it has increased in frequency. There is no reason why it should not. Diphtheria has increased in frequency. But there is the greatest possible difficulty in assigning any cause to the fact. Perhaps a new bacillus has cropped up, but I have my doubts. I do not see why the bacillus coli communis which is supposed to be the organism at fault should be new; it seems a very natural inhabitant of the part affected. It would be a strange thing if the colon were not the home of all sorts of bacilli, notwithstanding what tends to be, I think, one of the fads of the present day—that by giving a little $\beta$-naphthol, or salol, or creasote, or one of the fifty other "intestinal antiseptics," you can keep the colon as sweet, say, as the stomach. I am a great believer in the colon. It is a great absorbing organ As long as food is in the small intestine it is fluid—never solid—directly it passes into the colon it becomes solid. That can only mean that absorption goes on vigorously in the large intestine and I am in consequence an ardent opponent of people scouring themselves out with daily pills and potions. But if it is a great absorber it is also the main sewer. There is much in it which is cast out into the draught and which no antiseptic does much to clean. Nevertheless, it will lock up its contents in many a one for several days together and that with the smallest appreciable ill effects. This is not to be considered as an advocacy of constipation, it is only a passing caution in this day of ptomaines, antitoxins, and intestinal antiseptics—ideas which are all of them good in their place—that an ideal pathology or pharmacology may easily be made to outrun wisdom and common-sense.

To return to appendicitis, if it is more common than it used to be the reason is at present veiled—but the increased frequency of a disease may be said in some degree to be a variation of that disease inasmuch as it gains a firmer hold upon the community—and in so doing tends, one may suppose, to become by cultivation either of greater severity or to wear itself out like ringworm on the skin or as I suppose scarlet fever to be doing by gradually using up the available soil.

But I must draw to a close. Before doing so let me give one instance which may at first sight seem to weaken the argument for change of type in disease. That instance shall be influenza. I need not go into what our experience of influenza has been during the last few years. We are only too painfully familiar with it. But let me read you an extract from the pen of Huxham of Plymouth in 1733.[3] "On Feb. 10th some were suddenly seized; the day after they fell down in multitudes and on the 18th or 20th of March scarce anyone had escaped it. It began with slight shivering, followed by transient heats, headache, violent sneezing, flying pains in the back and chest, violent cough, and a running of thin sharp mucus from the nose and mouth. A slight fever followed, with the pulse quick but not hard or tense. Several had racking pain in the head, many had singing in the ears and pain in the meatus auditorium, also sometimes an abscess formed; exacerbations and swelling of the fauces were likewise very common. The sick were in general much given to sweating, which when it broke out of its own accord and was very plentiful, continuing without striking in again, did often in the space of two or three days carry off the fever. The disorder in other cases terminated with a discharge of bilious matter by stool. It was rarely fatal, and then mostly in infants and old worn-out people. Generally it went off about the fourth day, leaving a troublesome cough often of long duration and such dejection of strength as one would hardly have suspected from the shortness of the time. The cough was in all very vehement, hardly to be subdued by anodynes, and it was so protracted in some as to throw them into a consumption." In another place the same writer talks of the tongue looking as if rubbed with cream, large spitting, a sudden, nay a profuse, diarrhœa, with violent griping, &c. Few would fail to see in this description—Huxham appears to have been one who could describe what he saw—the very disease which has been with us on and off since 1889. But even here there is one important difference, for it is said to have been seldom fatal.

Measles, again, is another disease which does not appear to have altered much; the description given by Sydenham in 1670 would read exactly for the disease now. It has varied in intensity from time to time as all epidemics are wont to do. But, then, of these two diseases I think it may be justly said that they are of more epidemic type—influenza certainly is—and diseases which come and go, particularly those which reappear only at considerable intervals, have less chance of modifying their type by the continual friction of their environment; thus in their recurrence they drop into more or less virgin soil and run their natural course unhindered. Then, too, both these diseases have much in them that is common to a feverish cold, and colds are proverbial for the way in which they victimise repeatedly the soil that suits them; apparently they are turnips which would never become radishes. There are those amongst us who never "catch" them. Would that those who do so might "catch" instead the hidden secret of their success. But for a large proportion of humanity, I take it, they are of the minor ills we suffer, of those of which we stand most in dread. Nothing seems to stop them; they attack us again and again, and indeed it may almost be said of them

[3] Creighton's History of Epidemics.

that the more we have the more we may. And this would certainly appear to be true of influenza. We have all come across many people who having had influenza some years ago have had repeated attacks of something like it ever since. It is said that the recurrent attacks are not true influenza, but it is really very difficult to say in some of these cases in what the results differ from the cause. Moreover, in both these diseases it is very difficult to say what is the disease, for both, it is clear, make an open door for the entrance of the pneumococcus, the bacillus tuberculosis, the streptococcus, and so on.

There are many other points on which I had wished to have touched in the many excellent papers which have been brought before us. In the paper on Functional Dysphagia, by Dr. StClair Thomson, why is it that dysphagia so nearly always bespeaks a cancerous stricture? Here is another of those points in muscular pathology which is not without its suggestiveness in relation to stricture obstruction and muscular failure elsewhere. There is the paper on the Subsequent History of Adhesions in Joints, the Peritoneum, and Elsewhere, by Mr. Marsh, which could not fail to touch on many a moot point in pathology and treatment, for the serous and synovial membranes are of the most interesting of all our parts, they are at once so constitutional and so local. But time fails me. What I have said has been very crude; I have been away from books. These remarks are also very topsy-turvy, but then that is not altogether inappropriate for I have turned things somewhat upside down by my contention that opinion is the salt of fact. But is it not so? Solid observation must ever be the main object and the basis of the work of a society like this; but around it there is a legitimate sphere of influence for that-stimulating if nebulous atmosphere of thought which sometimes enables the poetic insight of the genius to piece discovery together.

"Maybe wildest dreams
Are but the needful prelude of the truth."

Turning now more particularly to our society and its doings, I was about to say that we have had an uneventful year, but from the point of view which I have taken in my address I must not say—I will not say—that it is so; for, indeed, any paper to which honest thought and work has been given cannot be other than an event, and any one of those to which we have listened may contain the germ of an epoch even although as yet we see it not. But in another respect our annals have been sadly eventful, for some of our great ones have fallen during the year. Our honorary members are limited to 12, and of these no less than 4—Dr. Cleveland, Dr. Hare, Sir William Jenner, and Sir Richard Quain—have all left the Land of Promise and have entered the great Continent of Fulfilment. Surely one may say of all of them, so far at all events as our small medical world is concerned, "They sleep with the enduring dead."

# A Lecture
ON
# MEDICAL LONDON.

*Delivered at the South-place Institute.*

BY E. BAXTER FORMAN, M.D. BRUX., M.R.C.P. LOND., M.R.C.S. ENG., L.C.C., J.P.

LADIES AND GENTLEMEN,—I am indebted to your honorary secretary, Mr. Shoewring, for the admirable title of this lecture. I shall not be far wrong in assuming that what is meant by it is, What are the public medical services? how is London governed from the medical side? I propose to speak in detail on some parts of the subject but only to glance at others. Poor-law administration and sanitary administration seem the natural divisions into which the subject falls, but there are some duties which do not come under either head. First as regards Poor-law administration. It is controlled by the Local Government Board and partly carried out by the guardians, partly by the Metropolitan Asylums Board, and partly by the London County Council. The sick poor are attended by a district medical officer elected by the guardians in virtue of orders issued by the Local Government Board which defines his duties. An important reform of late years is that the guardians supply the medicines which are compounded by their own dispenser. For some time the guardians have had the power of providing hospital accommodation and nothing in the treatment of the sick poor shows so much advance as the provision of the new Poor-law infirmaries. There are now 24 of them with 12,000 beds. While of old the workhouse sick wards were filled with the infirm and the incurable the new parish hospitals treat all non-infectious diseases. They are built according to modern ideas, they are liberally equipped, and the skill of the medical staff and the training of the nurses leave nothing to be desired. These institutions do not supply all the wants of the sick poor of London. In all continental cities, though there are small charitable institutions the great hospitals are aided either by the state or by the municipality. Here as you know it is different and it is our boast that these noble institutions are supported entirely by voluntary subscriptions. They open their doors as freely and as eagerly as if they were paid for the generous duties which they perform. They are the most democratic of institutions, for they enable the poorest and the richest (more than the class between) to benefit by the same skill. In 1897 there were 91 hospitals with 7234 beds in daily occupation, 99,178 out-patients were seen, and 1448 persons were received as in-patients. The medical staff numbered 1055 and the nursing staff was 2660, while the income was £690,006.

## THE CERTIFYING OF PAUPER LUNATICS.

Perhaps the most important duty of the district medical officer is the certifying of pauper lunatics. The supposed lunatic may be brought before the medical officer as an ordinary parish patient; or the relieving officer whose attention has been called to the case by the friends may bring him into the workhouse for examination; or the police may have arrested him while wandering about the streets. Anyway, a magistrate must examine the supposed lunatic with a medical officer. If he is found not to be insane he is discharged to his friends. If his case is doubtful and if it is thought he may recover very quickly he is legally detained in the workhouse for fourteen days; if, however, there is no doubt about his case he is certified as a person of unsound mind and is sent to one of the county asylums. Now the guardians lose him and he passes under the care of the London County Council. Admitted to the asylum he is examined and notes are taken of his symptoms and history by one of the medical officers and a little later he is visited by some members of the managing committee of the asylum who are necessarily members of the Council. During his stay he will be seen by members of the committee and certainly at the statutory inspections, and any complaint which he makes or any grievance which he alleges is duly investigated. Even here his protectors are not exhausted. Periodical visits are made to him by the guardians of his parish and more important still are the visits of the Commissioners of Lunacy. The Commissioners are a body of six experts, three of whom are medical men and three are lawyers. The total number of lunatics and imbeciles chargeable to the parishes and unions in the County of London on Jan. 1st, 1898, who were in asylums, licensed houses, imbecile asylums, workhouses, and with relatives was 20,482, against 16,358, ten years ago. On Jan. 1st, 1898, the accommodation in our own county asylums was 11,777 beds, against 7725 ten years ago. The increased accommodation includes extensions at Cane Hill and at Claybury and temporary buildings at Banstead and at Colney Hatch. Lately we have opened some temporary buildings at Hanwell. At Bexley Heath Asylum accommodation for 2000 patients is fast approaching completion; it has, indeed, already admitted a number of chronic patients. Horton temporary buildings for 700 patients will be ready in a few months, while the permanent asylum there will be ready in two years. The guardians pay the Council 9*s.* 11*d.* a week for the maintenance of each person. I may add that the cost of the maintenance of the lunatics to the Council is just under half a million a year. By a very odd arrangement the London County Council has nothing to do with the imbeciles or harmless lunatics, as they fall to the lot of another body which I shall describe directly, the Metropolitan Asylums Board. Claybury Asylum, commenced by the magistrates and finished by the Council, cost nearly three-quarters of a million pounds. It is unlikely, however, that any future asylum will

be so expensive. The Council is doing its best to overtake the requirements of London and is proceeding in its work with care and circumspection. It has got the gigantic task now well in hand and soon it will be no longer necessary to go outside our own asylums for the housing of our lunatics. We may, however, look to having to provide for 600 additional cases every year. You may ask what has rendered this great increase of accommodation necessary? Well, there are many subsidiary causes, such as lessened death-rate, &c., but the great cause is the increase of population. Is insanity, you may ask, really on the increase? It is to a small extent in London. The greatest causes of insanity are drink and heredity. Nay, often the drinker has inherited some weakness of will, some mental instability, for even alcohol will not drive everybody mad. Alcohol sifts out the susceptibles who if they miss the grave of the suicide march straight to the wards of an asylum. But do not let the man who is able to carry his liquor without showing it think he will escape. Retribution limps after the topers who remain and slowly but surely overtakes them at last, and our hospitals bear witness to physical máladies which are equally the result of intemperance. It may not be out of place to say that we do not stand still in the treatment of insanity. From the continent of Europe, from the United States of America, we are seeking to learn anything which can be taught us. We are employing the highest skill in trying to elucidate the dark problems of mind disease and whatever we find to be best either in the construction of the buildings or the treatment of the unhappy inmates will be adopted.

## VACCINATION.

Another duty of the Poor-law medical service is the performance of vaccination. It would be better if it were in the hands of the central rather than the local authority. Lately the public mind has been much exercised on this subject. A powerful Government introduced an admirable Bill, but finally made such concessions that what at last passed into law was only the emasculated form of what was originally proposed. The Royal College of Physicians of London at their meeting just before the Act was passed said that, "Having learnt that certain changes are likely to be made in the law relating to vaccination we think it is our duty to reiterate our conviction that vaccination properly performed and duly repeated is the only known preventive of small-pox." The Royal College of Surgeons of England about the same date reported: "We, the Council of the Royal College of Surgeons of England, desire to put on record our opinion of the value of vaccination as a protection against small-pox. We consider the evidence in favour of its life-saving power to be overwhelming and we believe from evidence equally strong that the dangers incidental to the operation when properly performed are infinitesimal. Experience has satisfied us that even when vaccination fails to give complete exemption from small-pox it so moderates the severity of the disease as not only to greatly reduce the mortality but to lessen the frequency of blindness, disfigurement, and other grave injuries. We would therefore regard as a national calamity any alteration in the law which now makes vaccination compulsory. We are, moreover, firmly convinced that revaccination is an additional safeguard and should be universally practised." A Royal Commission after sitting for seven years reported unequivocally by a majority of 11 to 2 in favour of vaccination. They say that they found vaccination a valuable preventive of small-pox, that the process could not be safely abandoned and replaced by other precautions, and that while some of the alleged dangers are real they are in truth unimportant in relation to the extent of vaccination work done and are diminishing under the better precautions of the present day. Yet in spite of this, in the very land of Jenner the new Vaccination Act lets even modified compulsion give way before the conscientious objector and revaccination is not mentioned at all. As the years go by we lose with the ardour the enthusiasm of youth, the credulity, the faith in the virtues of many things, but yet after thirty years spent in a wide field of observation and with now no interest to serve but that of promulgating what I believe to be right action I still believe in vaccination. What are the objections to it? 1. It is alleged that vaccination is inefficacious. Early in the century the decline in small-pox astonished the world, for nothing had been seen like it. It was not due to improved sanitation, for there was no sudden spreading of new ideas on this subject—it was due to vaccination. Mr. Holman Hunt the other day, in a letter to the *Times*, relates how in 1862 he had asked the then veteran judge, Mr. Stephen Lushington, his view of the relative beauty of ladies in the passing day and seventy years previously. The answer he got astonished him. "You can have no idea how it was that not more than one person in twenty then was undisfigured by small-pox and this generally to such an extent that whatever beauty there had been was seriously marred. It followed that when a woman escaped there was a disposition to regard her as a beauty for this cause alone and if, in addition, she had chiselled symmetrical features and good form of face and figure the admiration of her amounted to worship. The difference," he concluded, "I see now is that every woman we meet would have been a beauty in my early days." I inquired some years ago at one of our small-pox hospitals as to the mortality among its nurses and was told that no nurse was allowed to enter the service whom they could not sufficiently vaccinate, but that with that precaution no nurse had taken the disease. During thirty years the total number of boys who passed through the Bluecoat School was 5435 and only 1 of these had had small-pox. After the epidemic of 1871–75 it was decided to pass a general vaccination law for the whole of the new German Empire (I am quoting a book recently published by the Imperial Health Officer of Berlin and I may say I asked Professor Virchow about it the other day). Vaccination was strictly enforced under penalties on all infants and again at twelve years of age with the result that small-pox has practically been abolished in Germany ever since. Small outbreaks do occur from time to time, nearly all on the frontier, but the death-rate per million is almost *nil*, and in the army only one death has occurred since 1874 and that in an unsuccessfully revaccinated case. But no one can escape the law. 2. It is alleged that there is risk in the operation of vaccination, but if care is taken that no ailing child is vaccinated and the strictest antiseptic precautions are used with what should always be regarded as an important operation there is little fear of a bad arm from erysipelas or the like. A more serious danger is lest certain grave diseases may be introduced with the lymph, but our fears on this ground may be at once allayed, as it is no longer necessary to vaccinate from arm to arm as all danger is avoided by the use of glycerinated calf lymph. The calf is not liable to those diseases we most dread and glycerine has the power of killing disease germs from other sources. Before the new vaccine is used it is ascertained by the modern methods of bacteriology to be pure. It is curious that a healthy-born infant when nursed by a healthy mother is generally well for the first three months of life. Yet out of 568,907 deaths at all ages, 148,093, or about one-quarter, occur under one year of age. It is at the age of three months that vaccination has been usually performed and it has so received the blame for many ailments with which it could have no possible connexion. The new Act at least alters this. 3. Vaccination is, it is alleged, an interference with the liberty of the subject. The dictum of John Stuart Mill was that the only purpose for which power can be rightfully exercised over any member of a civilised community against his will was in order to prevent harm to others. Surely vaccination is a case in point. The great name of Gladstone was once the means of recommending the influence of authority in matters of opinion. Englishmen are apt to be governed by phrases and catchwords and too ready in every instance of a great principle to carry it to its logical conclusion, even to their own undoing. It is part of my duty to listen to summonses brought by school board officers against parents for not sending their children to school. A father will tell you that his son is sent to school but that he himself has to go to work and cannot tell whether the boy attends or not. A widow complains that she has to keep her eldest girl at home to mind the baby while she is out charing. The Education Act will have none of such excuses. It disregards the liberty of the subject and knows nothing of the "conscientious objector" and the result is that the magistrate must impose a fine. Up to now one-third of the children have escaped vaccination because the guardians fail to put the law into operation or because the magistrates refuse to convict. The best defence for the Government is that it was imperative that something should be done for the objector and that if they ceased to make martyrs they might get more converts. At present the new Act has brought little but ridicule. Next year a Revaccination Bill is promised and it is to be hoped that the commonsense of most people will avert the dire penalty which will otherwise be certainly enforced.

### THE METROPOLITAN ASYLUMS BOARD.

The Metropolitan Asylums Board came into existence under Mr. Gathorne Hardy's Act. It is not a directly elected body. A few of its members are nominated by the Local Government Board, the rest being chosen by the guardians from among themselves. Perhaps the most curious thing about this Board is that it has not charge of the asylums except in the case of Darenth, Leavesden, and Caterham, which are reserved for imbeciles. I have already said that the care of the lunatics is the duty of the London County Council. At Darenth also the Board, a hospital-providing authority, has a school for imbecile pauper children. Another curious thing is that the Metropolitan Asylums Board has other schools, so that in this big London you have not only the London School Board, which would seem to be the proper authority, with its elementary schools, its higher grade schools, its evening continuation schools, its schools for the blind, and so on, but you have the London County Council with its schools, the parishes with their schools, and the Metropolitan Asylums Board with its school. Imagine the case of a street arab who has not benefited by the Education Act sufficiently to know the difference between *meum* and *tuum*. He may be sent to the London County Council's reformatory school at Feltham, to one of their industrial schools at Mayford, to the School Board ship *Shaftesbury*, or to their school for truants at Highbury; or he may be sent to a parish school such as that at Forest Gate or to the Metropolitan Asylums Board's school on the training-ship *Exmouth*. Surely there is some anomaly in all these school-providing authorities each supported out of the rates. The Gathorne Hardy Act allowed parishes to combine and so bring about a classification of paupers—that is to say, it allowed the infectious cases to be taken from the workhouses and infirmaries and placed in special hospitals by themselves. In 1889 the Metropolitan Asylums Board was made the recipient of all certificates under the Notification of Diseases Act with the duty of paying all the expenses which are incurred. Scarlet fever, diphtheria, typhoid fever, and typhus fever are the chief diseases mentioned in the Notification of Diseases Act and they must be notified in every case and a certificate sent by the medical man attending the sufferers to the medical officer of health of the district, and this must be done whether the patient is intended to be sent away from his home or not. The dealing with these infectious cases is, after all, the great work of the Metropolitan Asylums Board. During the year 1897 there were notified in the metropolis 45,417 cases of infectious disease. Of these 39,257 were legally eligible for admission into the Board's hospitals and out of that number 22,964, or 58 per cent., were actually admitted. It is a notable feature in the work of the Metropolitan Asylums Board that although they are legally responsible for the providing of hospital accommodation for persons suffering from infectious diseases chargeable to the guardians—in other words, for paupers—yet that with the approval of the Local Government Board they permit the admission free of charge of any person reasonably believed to be suffering from fever, from diphtheria, or from small-pox. Typhus fever, the disease of overcrowding and poverty, once so prevalent in London, seems almost to have disappeared; typhoid fever is admitted into general hospitals and is well under control; and small-pox for the time being is absent and has its own special hospitals. Measles and whooping-cough are not included in the notifiable diseases, so that scarlet fever and diphtheria are the two diseases which give the most trouble to the Metropolitan Asylums Board. Scarlet fever stands first. There were 22,848 cases of this disease notified last year. While the deaths from typhoid fever, thanks to sanitary measures, have fallen from 377 per 1,000,000 persons living in London in 1869 to 129 per 1,000,000 in 1897, diphtheria in spite of all our sanitation seems slowly increasing each year. 1899 showed 12,803 cases of this disease against 5870 in 1890. In scarlet fever to take the patient out of his insanitary surroundings and give him plenty of pure air will do something to help him, while with isolation and disinfection we may hope to limit the spread of the disease among the rest of the community. Against diphtheria we have now a weapon of great po'ency—the new serum or antitoxin treatment. When administered early in the disease its effects are marvellous and it has reduced the mortality of the disease by one-half. The medical officer of the London County Council shows by figures the great influence of school attendance on the spread of diphtheria. It rises during the term and falls during the holidays. Of the ambulance work of the Metropolitan Asylums Board its managers are justly proud. There is nothing so complete in Europe. In the year 1897 22,916 persons suffering from fever, diphtheria, and small-pox were conveyed to the various hospitals of the Board, 8941 convalescent patients were taken to the Northern and Gore Farm Hospitals, and 8917 recovered patients were brought back to London. Altogether 42,758 removals were effected by the land ambulance in 1897. In addition to this there were four steamboats forming a river ambulance, and these in the same year conveyed 1283 persons to and from the hospital ships at Long Reach. This ambulance service cost nearly £10,000. The Metropolitan Asylums Board has now eleven hospitals without counting the small-pox ships. The Grove Hospital, it is hoped, will be finished this year, and with the erection of the Southern Convalescent Hospital and some enlargement of the other existing hospital the Board will then have over 6000 beds for these infectious cases, not counting Gore Farm which with its 740 beds acts as a convalescent fever hospital when not wanted for small-pox convalescents. Though since 1887 the managers have practically doubled their accommodation for fever patients which has now, as their report asserts, reached a magnitude of which no one dreamed five years ago, it records for five years in succession the entire failure of the accommodation to meet all the demands made upon it during a season of the greatest pressure. In 1897 an important addition to the work of the Metropolitan Asylums Board was made by an order of the Local Government Board. The Board are now the authority for dealing with children chargeable to some parish in the metropolis when suffering from: (*a*) contagious diseases of the eye; (*b*) contagious diseases of the scalp (ringworm); (*c*) requiring either special treatment during convalescence or the benefit of open air; (*d*) who by reason of defect of intellect or physical infirmity cannot be properly treated in association with children in ordinary schools; and (*e*) who are ordered by two justices or a magistrate to be taken under the Industrial Schools Act to a workhouse or asylum of the district. St. Anne's House, Herne Bay, is used as a convalescent home and a site for an eye hospital has been secured at Brentford.

### AMBULANCE WORK.

Before I pass to the next branch of my subject I shall just notice the treatment of street accidents. There were 300 deaths from this cause last year. The police for the most part deal with sickness or accidents occurring in the public highway. They are almost invariably trained to give first aid to the injured, but should the case require treatment before the sufferer can be taken to a hospital the police surgeon is called in, or failing him the nearest medical man. If the police send for the surgeon payment is made from Scotland Yard. Sometimes in criminal cases it is necessary to send for a medical man and then if possible the police surgeon is called. This same official has to attend at the police station and dress the wounds of the accused or decide between intoxication or insensibility from disease. The police have ambulances of their own but there are two voluntary associations providing ambulance carriages for the streets. A gentleman who had organised an ambulance service for Paris came to me when I was chairman of the Public Health Committee and advocated a plan of horse ambulances for the streets with surgeons in constant attendance. As we manage our street traffic better than they do in Paris perhaps there is no necessity to imitate our neighbours in this respect. The physicians who advise the Home Office in cases of alleged insanity in criminals and give evidence in matters of medical jurisprudence, the surgeons in gaols, the medical officers of the Post Office, the medical officers of the army and navy, and the medical officers appointed by the London County Council to be called to common lodging houses in cases of suspected infectious diseases, and others do not come within the scope of this paper and I therefore pass on to the work of sanitary administration.

### GENERAL SANITARY WORKS.

The work of the sanitarian interests all of us, for everyone is concerned in a movement the object of which is to prevent disease and to prolong life. There was a time when plague, pestilence, and famine were looked upon as Nature's means of getting rid of a surplus population whom it was difficult to feed and from the national if not the individual standpoint

something might be said for that view if epidemics only struck at the physically unfit, the insane, or the vicious; but with new ideas of heredity, with humaner views as to the sanctity of human life, we do our best to keep even the weakest alive and it is in this their environment that the sanitarian finds the field for his labours. With 4,500,000 people crowded together in the largest city the world has ever known we shall see what London has done to solve the problem before it. The first fact of vital statistics which strikes us is that the death-rate increases with the density of the population. In 1891 there were 329,765 persons living in tenements of four rooms or less. 37,055 persons lived 5 in a room, 17,232 persons lived 6 in a room, 6153 persons lived 7 in a room, 1844 persons lived 8 in a room, 33,560 persons lived 8 in two rooms, and 14,310 persons lived 9 in two rooms. Some time ago Professor Conelly and others reported to the Royal Society as the results of numerous experiments "that as we pass from four-roomed and upwards to three-roomed, two-roomed, or one-roomed houses not only does the air become more and more impure as indicated by the increase of carbonic acid and organic matter, more especially in the micro-organisms, but there is a corresponding and similar increase in the death-rate with a marked lowering of the mean age at death; and that the rapid increase in the death-rate as we pass from four-roomed to one-roomed houses is by far most marked in children under five years of age. The death-rate among these young children in one-roomed houses is nearly four times that of children in four-roomed houses while the general death-rate is not quite twice as great."

The duty of keeping London healthy is divided between the London County Council, the Corporation of the City of London, the Thames Conservancy, the vestries, and the district boards. The cost of this process for one year according to the latest returns was £1,014,474, or 4s. 9·53d. per head of the population. In this sum, however, is included main drainage, the prevention of the pollution of the Thames, and the cost of some of the parks and open spaces. Now these are all matters of vital importance to the public health, but as they are not administered from the medical side I pass them over. For similar reasons I say nothing about the water-supply except to show what powers are possessed in this connexion by the sanitary authorities, though I acknowledge at once that the water-supply of a great city should form a branch of its public health administration.

Certain Government departments exercise authority through medical channels. The Home Office administers the Factory Act for the whole of Great Britain. Its chief inspector is a medical man with a medical staff and locally there are factory surgeons. The Secretary of State for the Home Department deals with schemes for housing the working classes which have been prepared by medical officers of health and officers of the Council. The Local Government Board is the particular department having Poor-law and sanitary administration under its control. Its medical inspectors make reports on epidemics such as that of small-pox at Gloucester and that of typhoid fever at Maidstone, on phosphorus poisoning in match-making, on the lead industries in the north of England, and on sewage-contaminated oysters. The Board of Trade has certain *quasi*-medical duties with regard to food unfit for consumption.

The London County Council is responsible for several details of health administration. It has its staff of medical officers and sanitary inspectors. It has authority over the vestries and district boards in the metropolis and where any default is shown to exist it can compel these boards to perform their duties. The Council stands on a different footing from other county councils and from large municipalities in that it possesses administrative functions inherent in both counties and cities and also that it has the power of reviewing the action of local authorities within its area. It makes by-laws for the prevention of nuisances and these by-laws the vestries must enforce or the Council may institute proceedings against them. These nuisances relate to bad drains, ashpits, accumulations of refuse, removal of dust, the bad ventilation of workshops or their uncleanly or overcrowded condition, the emission of black smoke from chimneys, and the non-provision of sanitary conveniences in connexion with workshops and dwellings. Nuisances from dust and filth in the streets, from offensive matter emanating from manufactories and from slaughter-houses, the paving of yards and the keeping of animals—indeed, almost everything likely to be dangerous or injurious to health—come under its control. I have said something of the powers of the Council with regard to infectious disease. This body deals with the disinfection of houses and clothes and the destruction of bedding. Premises and apparatus are provided for disinfection and free temporary shelter and in cases of death from epidemic disease the Council provides for speedy interment. The by-laws with respect to disinfection of carriages which have conveyed persons suffering from infectious diseases are particularly strict. The Council deals with offensive businesses. It inspects and makes by-laws for slaughter-houses and knackers' yards. It may cause all dairies and milkshops to be registered and it makes regulations for the inspection of these places as to space, ventilation, lighting, and cleansing, and for precautions against infection. The vestries prohibit the sale of milk where infectious disease exists. Then the vestries have power over the sanitary condition of bake-houses. Their medical officers of health inspect shops and enforce the law with regard to diseased meat and unsound food. The London County Council may require water companies to give a constant supply and it may apply to the Local Government Board to alter the regulations of the companies. The Local Government Board tests the water supplied by the companies as do also the vestries and I need scarcely say that the London County Council promotes Bills in Parliament relating to the water-supply. It has recently spent £40,000 in this manner. Then in the absence of prescribed water-fittings and premises deemed unfit for occupation the vestries can proceed as in the case of a nuisance and may compel the owner to provide a supply of water. If the water is cut off the owner must close the house. Before a new house can be occupied the vestry must certify that it has a sufficient water-supply and it can enforce the cleansing of cisterns. The company, too, must give notice before cutting off the water-supply. The vestry can take proceedings to close houses unfit for human habitation. It can deal generally with overcrowding and it has powers with regard to underground rooms which are unsuitable for dwelling places. I ought to speak of the important work of the Port Sanitary Authority, but time fails me.

With regard to the work of the public analysts employed by the local authorities it is impossible to read the report published by the Local Government Board without seeing how important it is and what protection it affords to the very poor who are compelled to buy their food at the cheapest rate. We read of the substitution of margarine for butter, of cream being taken off the milk and replaced by water, and often with what the report calls quite medicinal doses of boric acid. What would be the case if there was no fear of analysis of these articles and no fine for their adulteration? The local authorities might do much more with regard to houses let in lodgings if they would only put into force the powers conferred upon them. They make the by-laws but they do not register the houses, and thus they lose an easy method of closing a house unfit for habitation. I am quite aware of the answer made by the local authorities, that if you drive these people from where they now are it will be to some place more crowded and less decent. More accommodation is needed. This is the reply we get in Bethnal-green. Yet the London County Council here has built a miniature city of artisan dwellings on the Boundary-street area and in the most hygienic and picturesque fashion. The fact is these dwellings, cheap as they are considering the many advantages they give, are for the better-class of workmen and they are quite out of the reach of the poor costermonger whose favourite quarter is Bethnal-green. I still believe if some Peabody could arise and clear away the slums and erect buildings suitable for the very poor that a small return on the capital could be obtained. The London County Council is too hampered in its operations with insanitary property. It has too high a standard for its buildings. The medical officer of health having drawn attention to the slum, if the scheme is feasible and the consent of the Home Secretary has been obtained, the Council or the local authority, or both, proceed to clear the site under compulsory powers. Then so many must be re-housed on the spot, so many within a mile. Few, if any, of the old residents occupy the new accommodation provided for them. We ought with cheap trains and tramways worked by electric traction to get more into the country. We ought to lessen the obligation to employ the site only for housing the working classes and thus be able to provide accommodation a little distant from the spot which has been cleared. Some of the land could then be sold for commercial purposes and the clearing of the

London slums could then proceed at a more rapid rate. So valuable is land in the metropolis that no doubt in time by a process of evolution all property of the nature we are discussing will be pulled down to make way for warehouses and offices which pay better, but we cannot wait for this. In the proposed Holborn to the Strand Improvement the cost of land for housing will amount to £260 for each person while within 1½ miles it would be £9. The liability to have to pay the whole cost of the land in sixty years is absurd.

THE ADVANCE OF THE MEDICAL OFFICER OF HEALTH.

From what I have said I think you will see that the medical officer of health is becoming every day more and more highly specialised and more able to cope with the prevention of disease and of insanitary conditions. Elected by the local authorities and partly paid by the London County Council and controlled by the Local Government Board, could the mode of appointment be improved? Do not the trammels of local influence, not to say the routine of their office, dwarf some of their powers for good? Sir Benjamin Hall's Act which created vestries has been in operation only about forty years, but during that time the death-rate in London has fallen one-half. England has always been the pioneer of hygiene, but if she has something to teach she has also something to learn. Ignorance, says a recent writer, pervades the minds of a large section of the public as to the elementary laws of ventilation as shown in the stifling air of churches, theatres, law courts, schools, and even bedrooms; the smoke-polluted atmosphere of our large towns continues with little effort to alter it. We are indifferent to the dangers arising from the consumption of tuberculous meat and milk, yet a Royal Commission has lately reported that any person who takes tuberculous matter into the body as food incurs the risk of acquiring tuberculous disease; and again as long as animals suffer from tuberculosis so long will there exist a fertile source of that disease among human beings. The Commissioners recommend the abolition of private slaughter-houses and the establishment of public abattoirs, and certainly we must have an improved inspection of our meat, whether killed in London or elsewhere. The inspector at Deptford told the Royal Commission that he often examined 1000 carcasses a day; what could such inspection be worth? The case of milk is even worse. Meat at least is always eaten cooked and so the dreaded bacillus is generally killed, but milk is often taken raw, though it could be heated and cooled in a way that would impair its taste but little. Some experiments of Professor Delépine show that out of 93 specimens of milk taken at random in Manchester 17 were tuberculous. It does not follow that every child who drank of this milk would get consumption, though the danger to one with a sore mouth would be very great, but there can be little doubt that a large part of the increasing tuberculosis of childhood is due to tuberculous milk. The need, therefore, of skilled supervision of the milk-supply is very great. Again, tuberculosis does not exhaust the dangers of milk, for typhoid fever and other diseases are unquestionably spread by this means.

And now, though I have not exhausted my subject I have, I fear, exhausted your patience. I think I have shown you the need of overhauling our health administration. It wants simplifying. There are too many authorities. It is not a case for more decentralisation but for more centralisation, for a general, uniform, coherent system. The Government, indeed, might well initiate some fresh legislation. We have a Prime Minister's authority for saying, "It is not the rearranging of political machinery; it is the improvement of the daily life of the struggling millions and the diminution of the sorrows which so many are called upon to bear which is the task, the blessed task, that Parliaments are called into existence to perform."

## A CASE OF MOVEABLE THIRD KIDNEY.

BY W. WATSON CHEYNE, F.R.C.S. ENG., F.R.S.,
SURGEON TO KING'S COLLEGE HOSPITAL; PROFESSOR OF SURGERY, KING'S COLLEGE.

IN the following case an independent third kidney was found on abdominal section and the extreme rarity of such a condition induces me to place it on record. Here a well-developed kidney was found on the right side of the lower part of the spinal column just at the brim of the pelvis, having its own ureter and blood-supply, and distant about from 3 to 4 in. from the right kidney, which was felt in the right loin and apparently of normal size. The hand passed up into the left loin also grasped the left kidney which was somewhat smaller than the right. In this case the symptoms were no doubt due to the mobility of the kidney and probably to slight pressure on, or kinking of, the ureter.

As regards anatomical literature I have consulted Professor Hughes and find that very little has been said about supernumerary kidneys. In the tenth edition of Quain's Anatomy, having referred to the common malformation—viz., horseshoe kidney—and to the absence of one kidney, the writer says: "The occurrence of an additional kidney is extremely rare; the supernumerary kidney is placed either in front or on one side of the vertebral column or in the pelvic cavity." In most standard works there are only statements to a similar effect. Debierre ("Traité d'Anatomie") relates a case recorded by Gavard where three kidneys were situated against the lumbar spine, the ureter of the central kidney opening into the ureter of the right kidney. This he regards as a case of complete division of the right kidney. There are also cases recorded by Adami, Day, and Halasy of complete double ureter attached to one kidney and several cases of single (lateral) kidney by Birmingham, Dwight, Menzies, Mackey and Koch, and Tweedy. The following are the facts of the case which came under my observation.

A woman, aged twenty-two years, had been under the care of Mr. Coalbank of Teddington for some time suffering from indefinite abdominal pain, indigestion, and a general hysterical condition. The only special feature in the symptoms was that when the pain was severe there was diminution in the quantity of urine passed. On examining the abdomen Mr. Coalbank detected a swelling below the umbilicus which was tender and corresponded to the chief seat of the pain. Early in January, 1898, I saw the patient with him and examined her under chloroform. An irregular, flattened, tender swelling was readily felt behind the right rectus muscle at the brim of the pelvis. The swelling was somewhat but by no means freely moveable and had a nodular character. It could not be felt from the pelvis and evidently had no connexion with the pelvic organs. As to the exact nature of the swelling we could not arrive at a definite opinion. The idea of a moveable kidney which presented itself among other suggestions was discarded on account of the situation of the tumour and the fact that it could not be pushed into the loin. As, however, it was evidently the chief source of the patient's trouble it seemed desirable to explore and ascertain the exact nature of the swelling and see whether anything remediable could be done. This I did on Jan. 18th, 1898. On opening the abdomen in the middle line it was found that the tumour was situated behind the peritoneum resting on the right side of the lower lumbar vertebræ and the brim of the pelvis. The peritoneum having been divided over the swelling and some fat around it having been cleared away it was exposed and presented the appearance of normal kidney substance. It was now thoroughly protruded through the opening in the peritoneum and presented the shape and size of a normal kidney except that it was distinctly lobulated. The hand was then passed up into each loin and a kidney found normally situated on each side, as has been already stated (this fact was verified a second time before the abdomen was closed). The condition was thus clearly one of supernumerary kidney and the patient's trouble was essentially due to slight mobility of this organ. I made no attempt to fix the kidney by stitches as that would have been very difficult and I hoped that the tearing and disturbance necessary to expose it would lead to such adhesions as would sufficiently fix it in its place. The kidney was therefore returned to its former position, the peritoneum was brought together over it, and the abdominal wall was closed in the usual manner with deep and superficial stitches. On Jan. 4th, 1899, Mr. Coalbank writes to me that the patient "has lost her usual plaintive frame of mind and is well and happy; she has had no medical attendance since her return from the seaside after the operation."

Harley-street, W.

BUDLEIGH SALTERTON COTTAGE HOSPITAL.—The annual meeting of this institution was held on Jan. 12th. The financial statement showed a balance in hand of £72. On the motion of Dr. R. Walker it was decided to admit paying patients at a cost of not less than 12*s.* 6*d.* weekly.

# NOTES ON THE DEMONSTRATIONS OF METHODS IN GASTRIC THERAPEUTICS.[1]

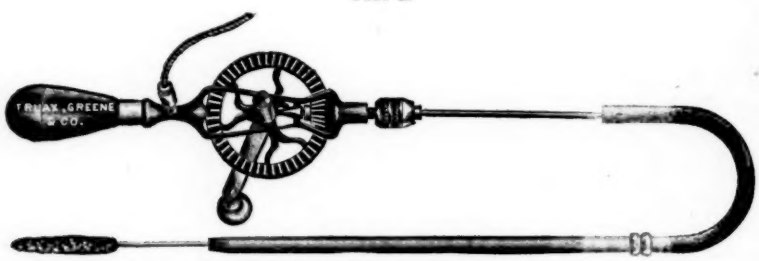
BY FENTON B. TURCK, M.D.,

PROFESSOR OF GASTRO-ENTEROLOGY IN THE POST-GRADUATE MEDICAL SCHOOL, CHICAGO; MEMBER OF THE AMERICAN GASTRO-ENTEROLOGICAL ASSOCIATION, ETC.

THE first essential element of rational therapeutics is a correct diagnosis based on the history of the case, its symptoms as observed by the physician, and thorough and exact methods of clinical examination. The evidence of the anamnesis and rational symptoms is as important in its way as any part of the general examination by means of such instruments of precision as the microscope, the test-tube, and all other paraphernalia of the medical laboratory and ought not to be undervalued. After all the data from all these sources are obtained he is best able to correctly diagnose the case whose judgment, ripened by study and experience, can best select and compare all the facts, giving each one its proper value, and then can estimate and harmonise the whole. The chemical methods of examination in gastric diseases have been carried by the Germans to an extreme refinement. Since Ewald first introduced the soft rubber stomach-tube this has been most extensively utilised in variously modified forms for both diagnostic and therapeutic purposes. The German literature on the chemical examination of the gastric contents by the use of the tube would fill many volumes and yet after twenty years' experience we find that little dependence can be placed upon the chemical methods and their results for diagnostic and therapeutic purposes as compared with those of directly mechanical methods. In 1894 I had the honour to present before the International Medical Congress in Rome a method for examining the stomach that looked more into the physical condition of the organ than into the chemistry of its contents. Demonstrations of the method were also made in that same year at Vienna, Berlin, and other cities.[2] Without going into any criticisms of the various other instruments and methods devised for the purpose of determining the position and physical condition of the stomach, some of which methods have done, and undoubtedly still do, great service in the hands of sufficiently skilled and experienced physicians, the medical profession is, I think, still in want of a rapid and practical method by means of which the position, size, and motor power of the stomach can be determined with accuracy and in all varieties of morbid states.

One of the instruments and methods there described for the first time in Europe, somewhat modified and considerably improved during the four intervening years of clinical practice and experimentation, I now present to you (Fig. 1).

FIG. 1.




The gyromele or revolving sound, with sponge attached to the cable.

The instrument I have called the "gyromele," though for most of you the term "revolving sound" may be more familiar and descriptive. It consists of a flexible rubber-coated steel cable, to one end of which is attached a soft sponge and to the other an apparatus for producing revolutions, not unlike a surgical drill. When the instrument is to be used the cable is first slipped through a rubber tube long enough to reach through the œsophagus to the cardiac opening and cable and tube are then introduced into the stomach. The cable and sponge are then pushed further down into the stomach and the drill is attached to the external end. As the now rotating and vibrating cable is pushed further down the sponge glides along the greater curvature, the pylorus, and the lesser curvature; while the cable adjusts itself to the shape of the stomach, and its motions can be distinctly felt by the hand upon the abdominal wall.

From the evidence of several hundred cases upon which the gyromele has been used both for diagnostic and therapeutic purposes during the last four years I believe that we can safely conclude that by means of this instrument it is possible to determine with practically absolute certainty—1. The exact outline of the stomach on the abdominal walls, the greater curvature, the lesser curvature, the fundus, and the pylorus. 2. The character of the stomach walls: (*a*) any considerable thickening of the walls is unfailingly discovered because of the varying ease and plainness with which the sponge revolved against the wall can be felt on the outside; and (*b*) the distensibility of the stomach can be more readily and more accurately determined by simply using cables of different degrees of flexibility than it can be determined by any other method. From its distensibility the motor power can be quite accurately estimated in cases where there is no pyloric obstruction, as has been repeatedly found by experiment. The pyloric obstruction if present is discovered in the process of the sounding of the stomach, pylorus, and duodenum. 3. In addition to the above complete diagnosis of the physical condition of the stomach the gyromele has been found to be an unfailing means of discovering atrophy and, indeed, of distinguishing atrophy from functional achylia. This is due to the fact that the revolving sponge is quite as effective as any test meal for stimulating the secreting glands to almost immediate activity. On withdrawing the cable the sponge is found saturated with the gastric contents and this furnishes ample material for bacteriological and qualitative chemical tests. If the gyromele is allowed to remain in the stomach for a few minutes (which does not inconvenience the patient) the stomach contents will within fifteen minutes invariably contain HCl unless there be atrophy of the HCl secreting cells. In order to thus determine with certainty the presence or absence of cellular atrophy the gyromele is revolved a little longer than usual and the stomach contents are examined about fifteen minutes after the withdrawal of the gyromele cable. The contents will then invariably contain hydrochloric acid unless there be glandular atrophy.

Before proceeding to practically demonstrate the use of the gyromele for these purposes it may be as well to call attention to the objection which has been raised against it by some on the ground of danger to the patient. This objection is wholly unwarranted so long as there is no case on record where the gyromele has produced injury to a patient. Neither in private practice nor in the large hospital practice of myself and my students has there ever occurred such a case and I have yet to hear of it from any other source. The gyromele is, in fact, less dangerous than the universally used stomach tube for the simple reason that the end of the cable is of sponge and this when wet, and especially when covered with mucus, is as soft and slippery as the mucous membrane itself. The reason for ascribing such danger to the use of the revolving sound must be the fact that it can be so easily and distinctly felt through the abdominal walls, but this is due simply to its rapid motions and vibrations which are very perfectly transmitted through the abdominal tissues and the patients soon become so accustomed to the gyromele treatment that its use does not produce any marked feelings of distress. In addition to the above I must also, in justice to myself, defend my priority in the introduction of the flexible sound as against the claims of Dr. Kuhn of Giessen. The flexible

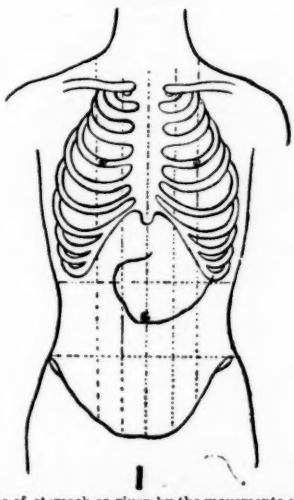
[1] Abstract of Demonstrations and Lectures given at St. George's Hospital, London, on August 8th, 9th, and 10th, 1898.

[2] Wiener Klinische Wochenschrift, 1895, Nos. 1 and 2.

revolving sound was used and described for the first time in Europe by me in 1894 as has already been stated. Its utility for sounding all regions of the stomach and duodenum as well was clearly set forth in my demonstration at Rome in that year, while Dr. Kuhn's first publication on this subject appeared in 1896. Since Dr. Kuhn in his publication makes no mention of my much earlier work on the subject it must be supposed that he knew nothing of it at the time. Be this as it may, the fact remains that he has not added a single new feature to the instrument which was shown in 1894 and his claims to priority either of the instrument or of any method of using the same is, to say the least, in every essential unwarranted.[3] We will now proceed with the demonstration.

CASE 1. (August 8th, 1898).—The patient, a woman, aged fifty-one years, began to have stomach trouble about a year ago and since that time has continually grown worse until she at present is so weak that she cannot leave her bed. The food that she eats, as well as the gastric secretions, seem to accumulate in the stomach until she is forced to vomit so as to obtain some relief from her distress. The vomited matter shows all the characteristic indications of retention. Examination shows general emaciation with panniculus adiposus absent. There is no cachexia. The chest organs are almost negative as regards physical signs. The abdomen is retracted in the left epigastrium and in the umbilical regions a bulging may be observed. This is due to the enlarged stomach as is shown by slight peristaltic movements, which can be recognised. Yesterday, three hours after a meal consisting of beef and bread, we found on passing the "intragastric reagent capsule"[4] into the stomach that the Congo paper and the dimethyl amidoazo benzol paper showed no free HCl, while the litmus paper indicated a faintly acid reaction. To-day on withdrawal of the stomach contents ten hours after a meal we find again no free acid and we do find quantities of food particles. We now introduce a very flexible gyromele with the patient lying on the bed, and by the palpating the revolving sound upon the abdominal wall we locate first the greater curvature at the umbilical line, and by pushing the cable further into the stomach until the revolving sponge impinges against the lesser curvature we find it located just below the border of the left lobe of the liver. On withdrawing the gyromele and testing the liquid which can be obtained by squeezing the sponge we find again that there is no HCl present in the stomach. The outline and position of the stomach as thus determined are shown by the diagram (Fig. 2).

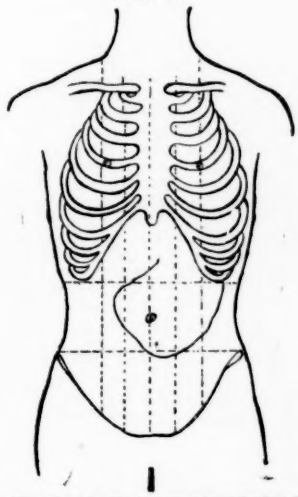
FIG. 2.



The outline of stomach as given by the movements of the light flexible cable.

In order to determine the degree of distensibility of the stomach we now pass in a gyromele having a somewhat less flexible cable than the one just used and again determine the outline of the stomach by palpating the revolving and vibrating sound. This time with the patient sitting upright we find the greater curvature below the umbilical line and quite near the hypogastric line while the lesser curvature can be distinctly outlined just above the epigastric line. As shown with this second cable (see Fig. 3) we find that the stomach

FIG. 3.



The outline given by the movements of the less flexible cable.

is only slightly dilated but that this is a case of marked gastroptosis with very lax ligaments, the stomach being freely moveable in its position. The long duodenal cable is next introduced for the purpose of sounding the pylorus. The sound is obstructed as it reaches the pylorus and further pushing only elicits signs of pain. The tip of the revolving sound can easily be recognised and the palpation indicates a hardened and thickened pylorus, but no tumour can be felt.

From the tests thus made we arrive at the following diagnosis:—1. Absence of free HCl after various test meals together with the failure of the gyromele to produce a secretion of the acid would indicate atrophy of glands. 2. The slight dilatation of the stomach, together with the ease with which the whole viscus can be pushed downwards, as shown by the use of cables of different flexibility, indicates the presence of gastroptosis and the thickened walls show hypertrophy. 3. The long retention of the food indicates either motor insufficiency due to myasthenia or pyloric obstruction and as the duodenal sound indicates a hardened and thickened pylorus we conclude that this is a case of stenosis pylorica. In view of the fact that the pyloric obstruction, notwithstanding the marked hypertrophy, is almost complete I recommend immediate operation.

[Through the courtesy of Dr. Ewart, the attending physician in charge of the case, the following hospital report has been received:]

"Operation was performed by Mr. Jaffrey on August 17th. No outlying mass of cancer or glands could be felt. The stomach was of moderate size with thick muscular walls and did not reach below the umbilical level. Owing to its dropped state it could be easily pulled through the incision as well as the pylorus. The pylorus and its vicinity were free from peritoneal adhesions or thickenings. There were a few superficial pyloric venules and minute whitish specks but no important engorgement. The gall-bladder was greatly distended with bile. Marked thickening could be felt not only at the pylorus but 1 in. or 2 in. along the duodenum and 2 in. or 3 in. along the lesser curvature. This decided Mr. Jaffrey to prefer gastro-jejunostomy to pyloroplasty and this was accordingly performed with satisfactory results, the patient doing well for two days. On the third day she began to vomit. Exhaustion set in on the fourth day when she died. At the necropsy no tympanitis or peritonitis could be found. The external and the stomach wounds were sound. The thickening which had been felt was found to be almost

[3] Turck: Die Priorität der Sondirung von Œsophagus, Magen und Eingeweide mittels der Gyromele (biegsamen Revolvirsonde), Centralblatt für Innere Medicin, No. 8, 1898.

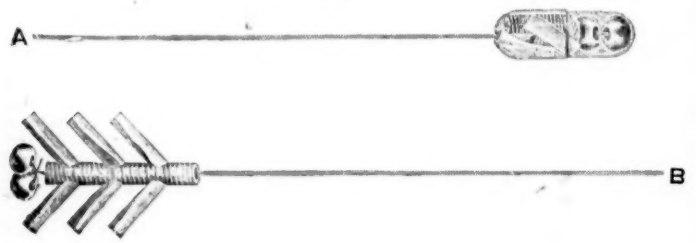
[4] See Fig. 4.

entirely muscular, traversed from within by a few fibres from a thin radiating deposit with white fibrous tissue in the submucous layer. In connexion with this the mucous membrane at the pylorus and for 1 in. beyond was atrophied, glistening, and striated.

"There appeared to be nothing in the case, judging from these appearances, incompatible with complete recovery from the gastric dilatation, as well as the gastroptosis, had the patient's strength been equal to the surgical ordeal. The case tends to show how slight may be the impediment which leads to these fatal results."

From what has just been said in regard to the use of the gyromele it must not be inferred that this instrument is the one thing or the only one to be used in the diagnosis of diseases of the stomach. On the contrary I would insist that the successful diagnostician of these diseases must have at his command all the methods which have been shown to be valuable, and to such an extent that he will know how to vary them in their application to the needs of each particular case. The test meals and the soft rubber stomach tube, for example, are devices for which the profession must gratefully remember their originators. Moreover, cases arise where the stomach tube as well as the gyromele fail us for the simple reason that we dare not use them. Various more or less successful devices have been got up to meet the needs of such cases.[5] In how far these meet the requirements of European practitioners I do not know, but I have found the following method to be of great value where the stomach tube cannot be used. In the *Journal of the American Medical Association* for April 23rd, 1898, I presented a device called "intragastric reagent capsule" which does possess decided advantages over the older sponge tester, silver bucket, pith-pellets, &c. The intragastric reagent capsule

FIG. 4.




A, the intragastric reagent capsule, containing the indiarubber tube, reagent papers, and lead shot, as shown in B.

contains a small piece of rubber drainage tube about an inch in length slit so as to carry three test-papers. Through the tube is passed a silk thread carrying a good-sized lead shot at the end. The tube with test-papers and the shot are enclosed in an ordinary gelatin capsule. The capsule is easily swallowed and sinks readily to the bottom of the stomach. In five minutes the capsule will be dissolved, the test-papers will be saturated, and the tube will be filled with the stomach liquid that will not run out because the lower end will be closed by the shot. When the string is withdrawn the three test-papers coloured with litmus, Congo red, and dimethyl-amidoazo-benzol paper respectively will at once indicate the chemical nature of the stomach contents. The liquid in the tube can be used for duplicating the tests or for microscopic examination.

CASE 2.—This patient, a robust-looking young woman, aged twenty-two years, has just entered the hospital with the diagnosis of ulcer of the stomach. She complains of a penetrating pain in the left epigastrium, near the costal arch. She has had frequent spells of vomiting, these sometimes passing into paroxysms of pain, when the vomited material would contain more or less blood. The physicians in charge have on the strength of these symptoms, upon which Brinton has laid especial stress, made a diagnosis of ulcer and have referred the case to this hospital for treatment. It is easier to describe characteristic symptoms of ulcer of the stomach than to make the diagnosis at the bedside. In at least 75 per cent. of the cases of ulcer there is an increase of the HCl and the other 25 per cent. show hypochlorhydria or very rarely a case of achylia. Therefore, if the excess of HCl is found together with the above three characteristic symptoms, localised pain, vomiting, and hæmorrhage, the diagnosis of ulcer would be very much strengthened. But we are prevented from determining the state of the gastric secretion by the danger of passing the stomach tube and by opposition from the patient. We may, however, have the patient swallow this intragastric reagent capsule which is neither more dangerous nor more difficult to swallow than a bolus of food. The capsule is weighted inside by means of a good-sized shot and its rapid entrance into the stomach is hereby ensured. We wait five minutes, allow the capsule to dissolve so that the test-papers may come in thorough contact with the gastric contents. On withdrawing the capsule test-papers we find that they are unchanged and that there is therefore no hydrochloric acid present in the stomach; the litmus paper shows there is in fact no acid reaction whatever. Closer investigation now reveals the fact that while the pain is more intense in the region of the costal arch it is also quite diffused over the epigastric region. We also learn that the pain is not particularly increased by taking food and that the hæmorrhage was at no time very profuse. These facts tend to throw considerable doubt on the diagnosis of ulcer. Now since by the use of the capsule the patient's opposition has been lessened we may now pass the stomach tube and on withdrawal of the contents we find that there is no acid present. Having thus found the presence of ulcer highly improbable we must look for other causes of the slight hæmorrhage which has occurred, and as râles can be heard in the apices of the lungs, especially in the right apex, we must consider the possibility of pulmonary hæmorrhage and if this be excluded we may diagnose the hæmorrhage as pharyngeal or œsophageal. Under these circumstances we certainly have no reason to consider this a case of ulcer and may recommend a more vigorous line of treatment.

The following report has since been received (September, 1898): "I may add to the report concerning the young woman that she continued to improve, gained weight as well as strength, and lost the slight râles that we had discovered at the right apex.—Wm. Ewart."

*Therapeutics.*—The first essential element of rational therapeutics, as was mentioned at the beginning, is a correct diagnosis and these demonstrations illustrate in a measure what was said in regard to having a sure command of the chemical and still more of the physical factors that must be considered in the accurate diagnosis of gastro-intestinal disorders. What is true of diagnosis is emphatically true in therapeutics of stomach diseases. Chemical reagents, medicines, have their proper uses and no conservative physician would attempt to do without them. Medical men are, however, at present agreed that the physical condition of the stomach is of far greater importance than its secretory function and the pathological disturbances are largely mechanical, such as motor insufficiency. The logical outcome of this fact are the modern attempts to improve this physical condition by physical means, such as lavage, massage, exercise, "electrisation," and a variety of mechanical stimulating devices. The gyromele described above is most useful as an instrument of diagnosis. In addition, however, it has a therapeutic value which can scarcely be over-estimated. It removes mucus and other adherent débris from the entire inner gastric surface and by subsequent use of the needle douche[6] the stomach can be cleansed far more perfectly than by any other method. By means of the gyromele any desired antiseptic can be applied to the entire surface of the stomach; the combined rotatory-vibratory motions of the gyromele give at the same time a very stimulating massage to every part of the organ. That the massage given by means of the gyromele must be very effective is evident when we consider that the mere contact with solid food in the stomach is sufficient to stimulate the circulation in the gastric walls and to produce the muscular contractions by which the food is churned during digestion. A systematic

[5] Ewald: Deutsches Archiv für Klinische Medicin, Band xxix., p. 555. Einhorn: Medical Record, July 19th, 1890. Spaeth: Münchener Medicinische Wochenschrift, Band xxxiv., 1897, p. 1011.

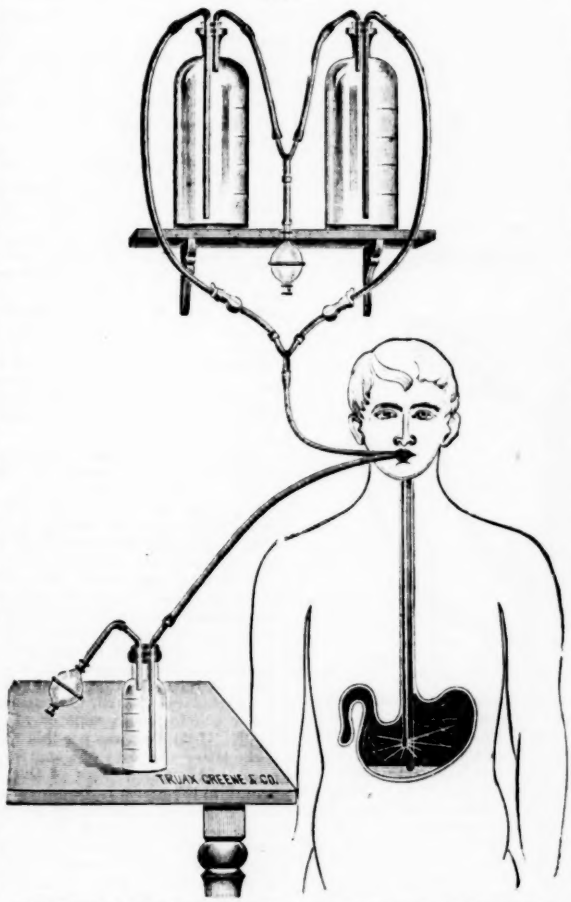
[6] Journal of the American Medical Association, June 22nd, 1895.

massage by means of the gyromele improves rapidly the motor power and the circulation of the stomach and these results are in turn followed by a diminution of the mucus and often by a restoration of the secretory function to normal conditions. In addition to these patent advantages of this instrument it has been found to act better than any other electrode for electrical stimulation because it permits direct application at any desired area of the stomach walls. For these reasons the gyromele is used in my private and hospital practice and clinics more extensively than any one other device.

The intragastric resuscitator which I show here needs but little description (Figs. 5 and 6). It consists simply of a double stomach tube[7] to one end of which is attached a soft rubber bag,[8] which was originally devised for the purpose of reducing surgical shock and collapse.[9] The bag when collapsed fits closely around the stomach tube and is easily introduced into the stomach. Its use and purpose in gastric therapeutics can be illustrated upon the following case.

CASE 3.—This patient, a keeper of a public-house, forty-two years of age, is suffering with Raynaud's disease. The patient is unable to walk and for the last six weeks has been confined to his bed. The hands are pale (local syncope) and the feet are bluish (local asphyxia). There is a complete absence of radial pulse and the heart beat is small and feeble. The abdominal physical symptoms are negative. The temperature in the axilla is 98·8° F., in the rectum it is 99·2°, and on the skin (inner side of the calf) 92·1°. The patient was given a bath about an hour ago; we now introduce the intragastric resuscitator. The double tube with attached rubber bag is passed into the stomach and we pass a continuous current of water through the tube and bag, beginning with water of 125° F. and gradually increasing its temperature to 130°. In surgical shock we use temperature as high as 135°. The water is cooled in the stomach by the rapid transmission of heat to the tissues, but as the current of water is continuous the high temperature is maintained and this acts as a powerful vaso-motor stimulant upon the œsophagus, the stomach walls, and upon the splanchnic area, and also reflexly on the heart. As the œsophagus and gastric walls become heated as well as the great vessels in proximity the warmed blood is rapidly carried to the periphery by the circulation, stimulating the cells and producing a dilatation of the previously contracted peripheral arterioles. The congestion of the splanchnic area is also rapidly reduced and a more abundant supply of blood is carried through the heart. The heart beats in consequence become stronger, the hands and feet begin to show warmth, and the improved colour of the skin can be observed as the treatment is kept up. This is particularly noticeable under the finger nails where the normal pink shade is gradually replacing the pale whiteness observed before we began the treatment. Half an hour's treatment is sufficient. We syphon off all the water from the bag and remove it and the tube from the stomach. The extremities now show warmth, the colour of the hands and feet is much improved, the eyes are bright, and the face presents quite a rosy tint. The patient feels stronger, is able to get out of the bed, and walks supporting himself to a rolling-chair, and seems in general to be very much strengthened. The heart area is normal, the beat is full and strong, and there is no reduplication of the heart sounds. The temperature one hour after treatment per rectum is 100°, in the axilla it is 96·6°, and on the skin it is 95·5°. (According to a later report the patient left the hospital much better and stronger. This case was used for the purpose of demonstrating the method of using the intragastric resuscitator and to show its physiological effects.)

FIG. 5.




The intragastric resuscitator; apparatus for the needle douche and for washing out the stomach.

The advantages of the intragastric resuscitator are: — 1. The heat is applied in a uniform and diffuse manner of much higher temperature than dare be used with water in direct contact with the mucous membrane. The temperature here used (from 130° to 135°) is in most cases necessary in order to produce the desired stimulation. 2. The exhaustion produced by passing large quantities of warm water directly into the stomach (which dilates the splanchnic vessels) is avoided, while the hot water used by the above method produces stimulation of this area without exhaustion. 3. The removal of the necessary secretions and nutrient material is entirely avoided. 4. The degree of temperature as well as the quantity of water used within the bag is under the complete control of the operator.

Fleiner refers to lavage as follows: "The changing distension and emptying of the stomach act upon the walls of the stomach like local gymnastics. Motility is rapidly improved, atony disappears," &c. (Quoted from Baruch's "Principles and Practice of Hydrotherapy," 1898, p. 280.) A more effective and satisfactory method for giving the stomach this exercise has been used for some years in my clinics and private practice. The alternating distension and contraction of the stomach is more perfectly accomplished by the use of air instead of water.

*Pneumatic gymnastics of the stomach.*—By this means the distension is more uniform in all directions and the objections to the heavy load in an already prolapsed, dilated, and weakened stomach is entirely avoided. Moreover,

[7] For description of Turck's double tube see the Journal of American Medical Association, June 22nd, 1895, and American Medico-Surgical Bulletin, July 1st, 1895.
[8] Journal of American Medical Association, June 11th, 1896.
[9] Turck: Surgical Shock, ibid., June 19th, 1897.

the dilatation by the use of water takes place in one direction only—namely, downwards—while the air acts equally on all sides giving all the musculature of the stomach that most effective extension and contraction which is known to be so valuable to weakened muscles of other parts of the body. I had the honour to present at the recent meeting in Edinburgh by invitation of the British Medical Association a full description with reports of experiments and cases of the apparatus and methods used to produce pneumatic gymnastics.[10] The method briefly is as follows. A double stomach tube is introduced into the stomach and is connected on one side with a manometer and on the other with a compressed air cylinder. The cyclinder has previously been filled with air at rather high pressure (3 or 4 atmospheres) by means of a small hand-pump. By then opening a stopcock of the cylinder air is allowed to distend the stomach until the manometer connected with the closed exit tube indicates the desired pressure. The stopcock is here closed and the exit tube is opened. The compressed air in the now quite distended cavity rushes out and the gastric muscles contract vigorously, aided by the contractions of the abdominal muscles.[11]

This exercise can be repeated from twenty to thirty times in the course of a few minutes and a regular course of this exercise will frequently produce a very rapid improvement in the motor power of the organ even after other methods of treatment have failed. Another most remarkable effect of this

FIG. 6.

The intragastric resuscitator; the gastric end of the double tube covered by the dilateable soft rubber bag.

treatment is the improvement of the local and general circulation noticed very early even by the patients. The experiments upon animals just referred to demonstrate a marked effect upon the splanchnic and ultimately upon the peripheral circulation. By passing the air through heated water (from 50° to 65° C.) we can introduce heated vapour at a controlled temperature into the stomach. The effect is most remarkable and the method has none of the disadvantages of lavage.

In the above are briefly indicated the most important original methods of diagnosis and therapeutics which are constantly used in our clinics and practice. More detailed descriptions of these have already been published in American periodicals,[12] but constant use naturally gives rise to modifications and improvements of instruments and methods. Some such, at present on trial, it is hoped can be reported upon in the near future, also some other points not touched upon here.

[10] This has since been published in the British Medical Journal, Oct. 29th, 1898. Turck: Pneumatic Gymnastics of the Stomach.

[11] An ordinary rubber bulb the same as used for producing a spray may be used, but is not as effectual as compressed air.

[12] 1. Treatment of Chronic Glandular Gastritis: Therapeutic Gazette, June 15th, 1895. 2. Glandular Gastritis with Bacteriological Studies of the Pharyngeal Vault: New York Medical Journal, Nov. 23rd, 1895. 3. Methods of Diagnosis and Therapeutics of Diseases of the Stomach and Intestines: Journal of the American Medical Association, June 22nd, 1895; also New York Medical Journal, Feb. 22nd and March 7th, 1896. 4. The Etiology and Pathology of Gastritis upon which is based Rational Therapeutics: Chicago Clinical Review, December, 1895, and January, 1896. 5. Gastritis Glandularis Chronica: Medical News, April 4th, 1896. 6. A Bipolar Stomach Electrode: Medical News, 1896, p. 240. 7. Modern Method of Treatment of Diseases of the Intestines: New York Medical Journal, Feb. 7th and March 13th and 20th, 1897. 8. Surgical Shock: Journal of the American Medical Association, 1897, p. 1160. 9. Experiments and Technique of a New Hydrotherapeutic Method: Louisville Journal of Surgery, July, 1898. 10. The Intra-gastric Reagent Capsule: Journal of the American Medical Association, April 23rd, 1898.

## THE PRESENT POSITION OF THE QUESTION OF OPERATION IN UTERINE FIBROIDS.[1]

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ALTHOUGH the consideration of this subject appears at first sight more fitted for a society of gynæcologists than for a clinical society it is well sometimes to report progress in any special work to those whose professional duties necessitate a more general range of information. During the last few years the surgical treatment of fibroid disease of the uterus has undergone considerable change and necessarily consequent upon this the general question as to what advice shall be given to a patient suffering from this disease has assumed new aspects. Speaking generally I believe it may be said that the usual feeling of both patients and the bulk of the medical profession is against active interference in these cases and that this feeling is based upon four reasons: (1) fibroids are not fatal if left alone; (2) fibroids can be made to shrink by the use of ergot and similar drugs; (3) fibroids naturally tend to disappear at the menopause; and (4) surgical interference if it is to be effective imports extreme risk to life. The relative value of the first three depends very greatly upon the amount of force which attaches to the fourth. If this is less true than it undoubtedly was they lose much of their importance, whilst a new set of reasons for operation which previously could scarcely be maintained now become evident and gain in weight in proportion to the amount of change which can be shown.

Before the introduction of asepsis into surgery the mortality of any operation for the removal of fibroid can hardly be said to have existed, since no such operation could safely be undertaken. The course of events has been greatly like that of ovariotomy. Since any new operation must necessarily be somewhat of an experiment it was only in extremely bad cases at first that anything was tried. This meant, of course, that the tumours present were exceptionally large and the prospect of removing them was correspondingly gloomy. Subperitoneal fibroids with a pedicle were removed if single. Submucous fibroids, also pedunculated and those which had become polypoid were taken away, but interstitial fibroids, especially if multiple, were carefully left alone. If the tumour projected sufficiently towards the uterine canal, this was dilated, the capsule divided, and the tumour either enucleated at once or allowed to gradually extrude itself. If the first was possible recovery often followed, but if the latter the risks of gangrene of the tumour were very great. Tait had 8 cases of this kind with 4 deaths. The operation then most in favour—due, no doubt, to his powerful advocacy—was removal of the ovaries and tubes. In his latest book he gives a list of 262 cases with 4 deaths, exclusive of his earlier cases which had a mortality of nearly 25 per cent. The latter list, it will be seen, has a mortality of only 1·53 per cent. The mortality in Thornton's hands was just over 4 per cent. Such a mortality is certainly low enough to demonstrate the safety of the operation, but the mere mortality is not of course the only point to be considered even if in other hands it could have been maintained. Of far more importance is the effectiveness of the operation and its ultimate result. The result of this method as a rule was a decrease in the size of the tumour and cessation of flooding, but this did not follow in all cases. In some the tumour not only did not decrease, but it went on enlarging, and especially was this the case in fibro-cystic tumours. These apparently were not amenable to this operation at all. Unfortunately these were precisely the tumours which gave most trouble, caused the greatest loss of blood, and as to which even the normal menopause could not be relied upon to give relief. Moreover, in many

[1] A paper read before the Clinical Society of Manchester on Jan. 17th, 1899.

of the worst cases, those in which surgery was most imperatively needed, it was noticed that whilst it might be possible to remove one ovary and tube it was well nigh impossible to reach the second whilst the tumour remained, and the essential of success being the total removal of all ovarian[2] and even tubal tissue up to the uterine cornu (Tait), the operator might find that after all his work was useless. Now, as such patients were worn down by loss of blood and pain beforehand, after such an operation they were but so much the worse. Johnson believes that the average failures amount to about 10 per cent. The opinion, meanwhile, was gaining ground that the ovaries like the ductless glands were essential to the general equilibrium, so that this operation was open to the double objection that whilst it could not be relied upon absolutely to get rid of the tumour and its results—loss of blood and pressure effects—it removed organs which might be perfectly healthy and which were necessary to the good and satisfactory after-condition of the patient. Naturally attention was again directed to the uterus itself. Myomectomy or removal of fibroids *per se* if single was carried out. Great difficulty was, however, sometimes found in closing the resulting cavity safely. Uterine tissue is extremely difficult to suture satisfactorily. It is not always the same, it contracts and dilates. A suture which is firm at the moment of insertion may be anything but firm after the abdominal wall has been closed. Besides, this could hardly be done when, as is so often the case, the fibroids were multiple. Just lately a proposal has been made by Alexander[3] of Liverpool to remove multiple fibroids through a single opening in the uterine wall, but it has not met with much favour. He brought forward 11 cases, and claimed that the uterine walls could be ransacked quite easily through the one incision. Although there was only one death the condition of the uterus itself after clearance in this way does not seem ideal. Moreover one could not be sure that such growths might not start afresh in a uterus predisposed to fibroid degeneration. This operation, however, may be said to be so lately brought forward that sufficient time has not elapsed for a fair judgment to be formed. Engström[4] in 1896 advocated a similar procedure. He used it in 100 cases with 5 deaths. In 37 cases there were multiple tumours (from 2 to 5) and once there were 22 tumours. In 3 cases there was return or fresh growths developed. There were 3 returned in 113 cases reported by Martin.

But attempts were now made to remove the uterus itself with its contained growths, leaving the ovaries and tubes behind, if healthy. The methods adopted followed almost precisely the same route as previously ovariotomy had taken. The uterus was delivered through the abdominal opening; its base was encircled by a wire serrenœud, and the main bulk cut away—the period of the clamp. Of course the pedicle became adherent to the abdominal wall. There was the same, only more prolonged and dangerous, period of separation of the stump, the same dragging afterwards upon the pelvic and abdominal tissues and, in addition, the very great risk of inclusion of some portion of the bladder so intimately adherent to the uterus, or the ureters, in the serrenœud. Secondary hæmorrhage also was not unknown and in cases where the fibroid had developed into and between the layers of the broad ligament, the removal of the parts above the bladder was practically useless, since the really effective producer of pain and pressure was left behind. Then the bladder was stripped down and the broad ligaments were opened leaving only the uterine cervix to act as a stump. Hegar's name is associated with this method. Knowsley Thornton may be taken as the great advocate of this extra-peritoneal fixation of the stump. But as operators realised more and more the safety of intra-peritoneal work it was inevitable that attempts would be made to dispose of this stump, as the stump of an ovarian tumour had been previously, so as to be entirely free within the cavity of the abdomen. There was, however, one obstacle to this and it appeared almost insurmountable. The cervical canal must be divided and in it there might be septic bacteria. The pioneers of this operation covered it over with peritoneum, removing a wedge-shaped portion so as to permit the formation of an anterior and posterior lip which were sewn together; in this way the peritoneal sac was closed and it was hoped that sufficient drainage would take place through the cervix into the vagina; Schroeder was the originator of this method. Several surgeons who practised this method had, however, every now and then to dilate up the cervix and let out pus which had accumulated beneath the peritoneum. Byford[5] after removal of the supra-cervical portion of the uterus made an opening in Douglas's pouch and forcibly dragged the upper extremity of the stump through into the vagina, leaving a curved stump of which both orifices pointed downwards.

The mucous lining of the cervix was also destroyed in various ways—by strong carbolic acid, by the actual cautery, or by the electric cautery—but it must be said that none of these methods were entirely satisfactory. The present methods aim at the entire removal of the uterus, cervix and all, and appears to give by far the best results. They are two—panhysterectomy by the abdominal route and vaginal hysterectomy; a combination of both is often found useful. Although these operations are comparatively new already some statistics are available and they are decidedly encouraging. Thus Kelly[6] reports a series of 100 cases, with a mortality of 2 per cent.; Bantock[7] 7 cases, with 1 death, due not to the operation but to chronic ulceration of the colon. Donald[8] in 1886 had 4 cases, with 1 death. Christopher Martin at the same date had 10 cases, with no deaths. Doyen[9] had 35 cases with 1 death; during 1897[10] Martin had 12 cases, with 3 deaths, by abdominal panhysterectomy.

In the execution of both these operations there are several variations in the manner in which they are carried out, the complete description of which would unduly prolong this paper. Péan, Doyen, Segoud, and Landau have each introduced some alterations in vaginal hysterectomy, and Martin, Zweifel, Baer, Sänger, Le Bec, and Martin in abdominal, but the ultimate intention in all is to remove entirely the affected uterus, leaving tubes and ovaries unless they are irremediably diseased. The advantages of such an operation are many. By the total removal of the fibroid uterus you get rid once and for all of the exhausting hæmorrhage, the sense of weight and discomfort, the pressure upon the bladder and rectum, the pressure upon the sacral and lumbar nerves, the obstruction to free circulation in the lower extremities; you leave behind nothing which can either start fresh growth or act as a nidus for suppuration, and you do leave behind the all-important ovarian tissue. The cardinal objection is, of course, that you take away also the possibility of pregnancy. Of course this objection applies to all methods by means of which the supra-vaginal portion of the uterus is removed. It remains to be seen whether this objection is worth as much as *a priori* it appears to be. Süsserott[11] says that out of 147 cases of pregnancy complicated with fibroids the forceps were applied in 20, out of which number 8 mothers and 13 children died. In 21 cases in which the placenta required removal by hand 13 women died. Collectively the mortality of the mothers was 53 per cent.; of the children 66 per cent. Tarnier out of 6 cases delivered by forceps lost 4 mothers and 4 children. In 6 cases with version 3 mothers and 3 children died. Five pregnant women with fibroids died before delivery. Sänger collected 43 cases where Cæsarean section became necessary. Out of these 36 mothers died—i.e., a mortality of 83·7 per cent. Pozzi collected 28 cases of Cæsarean section for fibroids; of these 24 mothers died, or over 86 per cent. Johnston says that during pregnancy or labour one-third of the mothers and more than one-half of the children die, so that where the tumour cannot be removed celibacy, he says, is to be recommended. Pregnancy, therefore, instead of being a condition for the sake of which a patient is to be advised to suffer anything, is really one of the complications most to be dreaded; and some writers, as Baldy, even advise operation more in young persons than in those whose chance of child-bearing is reaching its limit.

It is easy to understand why great danger arises in pregnancy. Abortion is frequent in these cases and the fibroid uterus less easily and perfectly contracts. Thus there is great danger of retention of clot or portions of decidua with the consequent septic poisoning. Lefour collected 39 cases of abortion due to fibroids, with 14 deaths. Should the pregnancy reach the normal limit the dangers of

[2] Thornton: Brit. Med. Jour., Feb. 11th, 1899, 83.
[3] Journal of the British Gynæcological Society, May, 1898.
[4] Monatsschrift für Geburtshülfe und Gynäkologie, Band 5, Heft 4, 1896.
[5] American Journal of Obstetrics, August, 1898.
[6] Kelly's Gynæcological Operations, vol. ii., p. 373.
[7] British Gynæcological Journal, August, 1898.
[8] Brit. Med. Jour., Oct. 4th, 1896.
[9] Gould's Year-book, 1889, p. 576.
[10] British Gynæcological Journal, May, 1898.
[11] Jessett: British Gynæcological Journal, August, 1898.

parturition are great. If the tumour has developed in the broad ligament it lies an insurmountable obstacle in the route through which the child should pass. Cæsarean section may be required. Sometimes the tumour can be passed by the aid of forceps. In such cases the tumour is apt to be so much bruised that there is great risk of its becoming gangrenous. In some cases the placenta is inserted at the region of the fibroid and furious hæmorrhage will occur during and after its separation, since the indispensable contraction cannot be brought about. If the rate of mortality in these cases be compared with that after panhysterectomy a fair idea of the relative risks of operation and no operation will be obtained.

But the mortality having been shown to be small the relative importance of the reasons for hysterectomy becomes much greater. I purposely omit the consideration of electricity in these cases. It only confuses the question, since, although personally I have had one or two fairly good results, the method has been practically abandoned. In 1892 Thornton[12] declared that any man who advised operation in cases which required vaginal examination for its discovery was either a very ignorant or a very wicked person. Kessler[13] in 1896 said it was questionable whether it is not advisable to operate in every instance. He pointed out that in many cases the tumour first begins to grow after the menopause; that persistent hæmorrhage results in fatty degeneration of the heart muscle—the fibroid tumour heart; that gangrene or sloughing of the tumour may occur; now and then they become telangiectatic and cystic, more rarely torsion occurs; then that a fibroid easily degenerates into a sarcoma; and finally, that local compression of neighbouring organs occurs. The risks of concurrent pregnancy have been already emphasised.

Whilst the operation for removal was associated with a high mortality it followed as a matter of course that the alternative miseries attendant upon the presence of fibroid disease were ignored or depreciated as much as possible. With the decrease of danger these may be estimated at something more like their actual value and importance. In the early stage there are aching, weariness, and pain which is constant, varied by pain which is very acute just before each period. The patient must give up her business or profession whilst the period lasts, for she must spend that time on a couch or in bed. Worst of all she is for ever dribbling urine. Think what that means. The pressure on the bladder, or if the growth is posterior, the dragging upon the vesical neck is persistent. Whenever the bladder contains a little urine there is an insistent desire to evacuate it. If that desire cannot be complied with the urine escapes. During the day there is a penetrating urinous odour about the patient which, fight against it or disguise it as she will, forces her to become isolated. She cannot spend a few hours at a concert, at church, or at the theatre; she cannot take part in any society, owing to this wretched infirmity, which constantly reminds her of her merely animal nature and debars her from the natural pleasures of her more intellectual tendencies. As time goes on and the enlarged uterus rises into the abdomen this will improve, but only if the fibroid is interstitial or submucous. If, on the contrary, it should grow into the broad ligament this symptom is often intensified and increased. Suppose the former happens the urinary trouble is replaced by the exaggerated loss of blood. In any case this happens. The periods are not only more copious; they are prolonged. Naturally two or three days only in duration, they last now four, five, six, eight, or ten days, checking a little one day to gush more profusely the next. Nor is this all. Originally recurring once in four weeks, they now return every three weeks or even every fortnight, whilst the period of freedom, during which a little strength might be regained, becomes shorter and shorter. One of my patients who was possessed with the old ideas about fibroids and who believed that operation meant death passed six months without having more than one day free at a time from hæmorrhage.

Hæmorrhage which does not kill loses after a time its terrors for the medical attendant; but consider what persistent hæmorrhage lasting for months and years means to the patient. She is like a business man who attempts to carry on his business with little or no balance at his bankers—every slight call upon his resources brings him to the verge of bankruptcy and keeps him in a perfect fever in order to maintain his hand-to-mouth existence. So with a fibroid patient. As long as she can be absolutely quiet, as long as no sudden or even moderate calls are made upon her strength, so long she may live a vegetative life. But what a life! Anything out of the ordinary routine and she pants for breath, faints, collapses. Even the confined, mewed-up life of a confirmed invalid becomes at last almost too much for her. Her white lips, pearly conjunctivæ, puffy eyelids, sunken eyes, and fleshless limbs show unmistakeably that she has but just enough of blood to suffice for the most elemental needs. Her muscles waste, partly for want of exercise partly for want of nourishment; every movement, every effort is a struggle, whilst her nervous system becomes irritable, emotional, its action irregular and altogether inefficient. If she is a woman with but little will she yields in the unequal struggle, becomes captious and peevish, and a misery to herself and to everyone around her. If she is of better fibre she undergoes a daily martyrdom to which the short, sharp agony of the mediæval saints was but a trifle. And it is when after months and years of patient and almost hopeless endurance she has reached this stage that surgery is at last invoked. Can it be wondered at that sometimes surgery is, under such circumstances, followed by fatal results? Is it not more to be wondered at that in so many cases success is achieved and the patient is at last freed from the daily drain and succeeds in recovering health and strength? What different prospects would surgery have if it were allowed to act whilst yet the patient's strength were unsapped, whilst yet there was a reasonable amount of blood in her body? Since all fibroids, however large, must at one time be small, and since the risks of removal increase *pari passu* with the size of the tumour and the amount of blood lost, it would seem that now we have arrived at this: so long as fibroid tumours give rise to no marked symptoms and show no tendency to enlarge they may be ignored; if, however, they are definitely increasing in size it is wiser to remove the entire uterus, leaving all the ovarian tissue possible, whilst the tumour is yet fairly small. In this way the risks of the operation will be minimised as far as possible, the patient will be in the best condition to ensure success, and will be saved most of the miserable but inevitable results of this disease.

Manchester.

[12] Brit. Med. Jour., Feb. 11th, 1893.
[13] Petersburger Medicinische Wochenschrift, No. 19, 1896.

## ON THE TREATMENT OF VARIOUS INFLAMMATORY PROCESSES BY THE EXTERNAL APPLICATION OF ALCOHOL.

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THIS treatment came under my notice in 1896 through a paper written by Dr. Salzwedel in the *Berliner Klinische Wochenschrift* who warmly recommends it for the treatment of whitlow, lymphangitis, phlegmon, incipient abscess, &c. He states that in many cases if the treatment is commenced soon enough the inflammatory process is arrested and disappears within forty-eight hours and that in all the cases in which suppuration is unavoidable the suppurative process is promoted and the forming abscess is more localised and thus the time of healing is shortened. Dr. Salzwedel claims that the alcohol vapours enter the skin and act as direct disinfectants on infected tissue. Other medical men in Germany have since tested these bandages and also recommend them. I have used them for the last two years in all suitable cases with favourable results.

The application must be made with care if we wish to be sure of the result. The inflamed part is washed with soap and water—if necessary with ether—dried, covered with some gauze (to prevent the cotton-wool from adhering to the skin), and then a layer of from ½ in. to ¾ in. of cotton-wool is bound round the part by means of a gauze bandage. The whole is saturated with a strong solution of alcohol. In Germany and in Switzerland we use 96 per cent. alcohol—the spiritus alcoholisatus to avoid the expense of absolute alcohol; the spiritus rectificatus (86 per cent.) of the British Pharmacopœia will serve the same purpose. Over this bandage, well saturated with the rectified spirit of wine, but not so that it drips, a cover of gutta-percha paper is fastened by means of a gauze

bandage so that it overlaps the bandage by one inch on every side; this gutta-percha paper must have small holes cut in it at intervals of about an inch. These holes are easily made by folding the paper from six- to ten-fold and snipping off the edges. The whole process takes less time to execute than to describe. This bandage is removed every twelve or twenty-four hours, according to circumstances—the severity of the case, the pain, the fever, the rapidity of evaporation, &c. The same gutta-percha paper can be used two or three times if cut large enough, as the alcohol makes it shrink. It is very essential that the bandage should reach an inch or two beyond the inflamed part and that the gutta-percha paper should itself reach beyond the bandage by an inch, also that holes should be cut in the gutta-percha paper to ensure evaporation. These bandages are often too circumscribed if the inflammation covers a great area; if limited to the limbs the attendants or relatives of the patient can renew them alternately with the medical attendant. The expense of these appliances is inconsiderable and they can therefore be used in the out-patient department of hospitals.

The bandages have in most cases afforded me entire satisfaction so that I think it will be instructive if I publish some notes in full, taking only one example in each category. I have seen failure only in a few cases, when either the application was not made correctly or for particular reasons was not continued long enough.

*Whitlow.*—The usual treatment with either cold, tepid, or hot applications of watery solutions of some antiseptic or other, such as boric acid, acetate of lead, or alum solutions, or even solutions of mercury perchloride, does not give as satisfactory results as these alcohol applications. It is extremely doubtful whether the antiseptics are absorbed by the skin at all, thus we can only rely on the effect of the watery application. Commencing whitlows subside under alcohol and disappear. The pain is alleviated rapidly and definitely in the majority of cases. In progressive cases the inflammation confines itself to quite a limited area, the secondary inflammatory symptoms—œdema and lymphangitis—vanish, suppuration is localised and at the same time promoted, the deep-seated abscess tends to burst outwardly instead of progressing to the interior, and incision at the right moment with a couple of days' after-treatment usually effects a cure.

CASE 1.—The patient, aged twenty-five years, pricked herself with a rusty nail on April 19th, 1898. There were pain and swelling of the corresponding finger stretching up the dorsum of the hand and the forearm. An alcohol bandage was applied on the evening of the 20th and the patient passed a good night and had hardly any pain. On the 21st the wound which was on the fourth finger showed some yellow secretion. The third and fourth fingers of the right hand were greatly swollen and red and the dorsum of the hand was still swollen. Alcohol bandages were applied in the morning and at night. The patient passed a good night on the 22nd. Swelling was much less and there was no pain. Bandages saturated with 1 in 2000 corrosive sublimate were ordered. The patient returned in the evening in great pain and with increased redness and swelling and wanted an alcohol bandage for the night which was accordingly applied. She had a good night. On the 23rd there were more swelling and redness, but the wound was healing. Under daily application of alcohol bandages the swelling disappeared altogether in three days. A small abscess formed round the wound after incision, but it healed under the application of ointments.

*Lymphangitis.*—Generally the inflammatory process is arrested within forty-eight hours. Two years ago I had occasion to treat myself for lymphangitis of the left hand due to a tiny abscess under a finger-nail. Sublimate baths having failed to give any relief or to prevent the increase of the inflammation I applied an alcohol bandage with the best results. The pain disappeared in half an hour and the swelling and redness of the hand in thirty-six hours and then the abscess under the finger-nail was cured by removal of half the nail and local antiseptic treatment.

CASE 2.—The patient pricked himself on the cheek with a rusty pen on Nov. 23rd, 1896. When the patient was seen on the 24th there was a slight wound on the cheek an inch from the angle of the mouth with infiltration of the size of a hazel-nut round it. Boric acid and sublimate compresses were used. Most intense pain caused a sleepless night. On the 25th the patient was in bed and his temperature ranged from 102° to 103° F. Alcohol bandages were applied in the morning and at night. He slept almost all night, the temperature being normal on the 26th. Red lines of lymphangitis extending from the wound to the ear were noticed. There were swelling of two glands in front of the ear and slight neuralgic pain in the corresponding ear. The infiltration was then of the size of a walnut, hard and non-fluctuating. The alcohol bandages were continued morning and night. In the evening the patient felt quite well and was up on the 27th. He was dismissed on the 30th, the swelling having subsided. The latter ultimately disappeared under the use of an iodine ointment.

CASE 3.—This case illustrates the prompt action of the application of alcohol in cases of insect bite. The patient was twenty-five years of age. He was bitten on the back of the hand by a cattle-fly on August 2nd, 1898. On the 3rd there were two small white dots on the back of the right hand. There were heat, redness, and considerable swelling of the hand and forearm and lymphangitic lines up to the axilla. There were several swollen glands in the axilla. The temperature was 99·5° F. Intense pain of the whole arm was experienced. Alcohol bandages were applied up to the elbow. In the evening the swelling had increased but the pain was less. On the 4th the hand and arm were swollen to double their normal size and the glands in the axilla were very sensitive. The patient had had a fairly good night. The temperature was normal. Alcohol bandages were applied morning and night. On the 5th the swelling and the pain rapidly disappeared so that the patient was dismissed with his arm in a sling. On the next day the sling was dispensed with.

*Localised furunculosis.*—This condition is amenable to the treatment. I bear especially in mind the case of an anæmic boy, aged ten years, who resisted antiseptic treatment for six weeks, but immediately improved and was definitely cured by nightly applications of alcohol.

*Sycosis* can be similarly treated without inconvenience to the patient and a medical friend of mine, a dermatologist, is well contented with this treatment.

CASE 4.—This case is one of acute glandular inflammation after measles. A boy, aged four years, had morbilli in September, 1897. He was never quite well, but pale and languid. Sudden fever came on on Oct. 18th, the temperature reaching 102° F. On the 19th the patient seemed very ill, with furred tongue, great restlessness, and whining voice. The temperature was still 102°. The submaxillary glands and the glands in front of, and behind, the sterno-cleido-mastoid muscles were much enlarged and were painful to touch, especially on the left side. There was no throat or ear trouble. No source of infection other than the previous attack of measles could be traced. Wet bandages to be changed every two hours were ordered and 3 gr. of phenacetin at night. On the 20th the temperature was 101° to 102°, but there was less pain. The patient had perspired freely. Short baths of 92° twice daily were ordered. On the 21st the temperature ranged from 102° to 103° and the pain had increased greatly, the patient not having had a moment's freedom from it all night. The swelling of the glands had greatly increased. Phenacetin failed to relieve the pain. There were general tremor and apathy and the patient could scarcely sit up in bed. In the evening the pain was still intense and only two hours' sleep had been obtained out of forty-eight hours. An alcohol bandage was tried. On the 22nd the patient who had slept well notwithstanding a temperature of from 102° to 103° took an interest in his surroundings and wished to get up. The temperature was 102°. The glands were decreasing in size. Alcohol bandages were applied. On the 23rd there was no fever. The glands were smaller and no longer painful. Under alcohol bandages twice a day the glands further decreased in size and the patient was dismissed on Oct. 27th with the injunction to use "iodine vasogen" morning and night. After a week the glands were not to be felt.

I may mention that this treatment, successful as it is in acute glandular swellings, signally fails in cases of chronic, probably tuberculous, swelling of the glands of the neck.

I think the preceding selection of cases will decide many a practitioner to give the alcohol bandages a trial.

Zürich.

# TEN CASES OF VAGINAL HYSTERECTOMY.

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THE operation of vaginal extirpation of the uterus and appendages has been very extensively practised during the last few years, and the results attained have been very satisfactory. Originally introduced as a radical treatment for cancer its scope has been extended to other diseased conditions, such as uterine fibroids if below a certain size, chronic inflammation of the uterus with advanced bilateral disease of the appendages, pelvic suppuration, and, lastly, intractable cases of prolapse. The improvements in technique have been followed by great reduction in mortality. The best results have been obtained in extirpation for fibroids and inflammatory conditions, some operators having published series of 40 and 60 cases without a death. In cancer the mortality has been somewhat higher, especially if the disease has advanced beyond the early stages. It has also been clearly shown that for malignant disease extirpation of the uterus can only rank as a palliative procedure since recurrence sooner or later is almost invariable. There can be little question, however, of the great relief and prolongation of life which is generally afforded by the operation. I have performed vaginal extirpation in 10 cases—in 5 cases for cancer of the uterus (cervix 4, body 1), in 3 for multiple fibroids, and in 2 for chronic inflammatory affections combined in the latter with removal of the appendages. In this series one death has occurred due to intestinal obstruction nine days after operation; all the other cases made rapid recoveries. The notes are briefly as follows.

CASE 1. *Adeno-carcinoma of the body of the uterus.*—The patient, whose age was fifty-one years, was first seen in June, 1896, on account of uterine hæmorrhage which had commenced six months before. She had had one child twenty-five years ago and the menopause came on in her thirty-ninth year. Examination revealed a senile vagina and cervix. The uterus was bulky and retroflexed. No adhesions could be discovered. The sound passed 3 in. and the cavity felt large. The uterus was explored under anæsthesia and small hard masses of growth were removed. Microscopically these showed typical adeno-carcinoma and immediate extirpation was advised. The patient would not, however, at first consent, but later, in October, 1896, she was admitted into a home and extirpation of the uterus was performed. The ovaries and tubes were atrophied and were not removed. The patient rapidly recovered and left the home in three weeks. The uterus on section showed extensive diffuse growth, infiltrating the muscular wall; the peritoneum was healthy. The patient remained quite free from recurrence for twelve months. She then began to feel intense pain in the back and down the left leg and examination revealed a recurrence of growth at the side of the pelvis. A little later she developed enlargement of the lumbar glands and ascites. She then commenced with symptoms of lung trouble, hæmoptysis and cough, the result of extensive secondary growth. She gradually sank and died eighteen months after operation.

CASE 2. *Carcinoma of the cervix.*—The patient whose age was fifty-three years and who had had two children was sent to me by Dr. Arthur Chapman in March, 1898. For two months she had noticed bleeding from the vagina and a month later she commenced to have pains over the right hip. The menopause occurred at forty-three years of age. The vagina was senile and narrow, the cervix was hard, and a mass of growth could be felt in the canal and invading the external os. The fundus was small and the cervix moved freely. Per rectum, however, induration of the right sacro-uterine fold could be plainly made out. The appendages were small. On April 30th vaginal extirpation was performed in a nursing home. She rapidly recovered and returned to her own home in eighteen days. The uterus showed advanced glandular carcinoma commencing in the cervical canal and reaching as high as the internal os. The fundus was healthy. It is in this form that the growth frequently becomes very extensive before causing symptoms and in this instance although operation was undertaken two months after the earliest hæmorrhage lymphatic invasion of the base of the right broad ligament had already taken place. The patient remained quite well for six months but in October last she felt recurrence of pain in the right hip and a small mass of secondary growth can now be felt in the glands at the brim of the pelvis.

CASE 3. *Carcinoma of the cervix.*—The patient, fifty-nine years of age, was seen by me in July, 1898, with Dr. Godson of Cheadle. A month previously whilst exerting herself she had a profuse hæmorrhage. Up to this time she had felt perfectly well. The hæmorrhage became very slight after a few days. She had had three children the youngest of whom was twenty-five years of age and the menopause had occurred at the age of fifty-one years. She looked in excellent health. The vagina was very narrow; the cervix showed an area of ulceration around the external os and felt nodular and hard. The uterus was small and moveable. Per rectum, however, slight thickening of the base of the left broad ligament could be detected. A few days later I removed the uterus at the patient's own home. She made a rapid recovery and at the present time remains in perfect health. The uterus on section showed adeno-carcinoma commencing in the glands of the cervix and being more advanced in the upper parts of the cervical canal. The body was small and atrophied.

CASE 4. *Carcinoma of the cervix.*—The patient, aged forty years, consulted Dr. Percy Cooper in August, 1898, on account of uterine hæmorrhage which had been present more or less constantly for ten months and for the last month she had suffered from very severe pains over the right side of the sacrum and hip and shooting down the right leg. A few days later I saw her. She had had 6 children, the youngest being ten years of age. Menstruation had been regular but at each period the bleeding had been excessive. The cervix was much enlarged by a mass of growth involving both lips and extending posteriorly on to the vaginal roof. The base of the right broad ligament was thickened and the right sacro-uterine fold could be plainly felt. The uterus did not pull down freely with volsella. The body was moveable. It was evident that the growth had extended so much that although removal was possible recurrence must take place before long. The patient, however, suffered intense pain, requiring morphia, and she was otherwise in such good general health that I thought removal would give temporary relief, although operation could not be urged. She decided to have the operation carried out. On Sept. 18th, assisted by Dr. Cooper, I removed the uterus. This was somewhat difficult on account of its large size and of the perimetric thickening on the right side. After taking away the uterus I found a mass of growth lying on the sacral plexus. This I removed carefully, exposing the trunks of the nerves. The patient made a speedy recovery, all pain having ceased. At the present time (January, 1899) she is very well, although occasionally she feels slight pains in the right hip. Recurrence, however, must be anticipated before long. Still the relief given has been very marked.

CASE 5. *Carcinoma of the cervix.*—The patient, aged thirty-eight years, had been ailing for three months from attacks of vomiting and general weakness. She had had four children. She stated that she was fairly well until May, 1898. She then noticed an offensive discharge with hæmorrhage and for a month the bleeding had been very severe. She was anæmic and had lost 2 st. in weight. Examination showed an extensive epitheliomatous growth of the cervix which bled very freely. The uterus was not obviously enlarged and there was no perimetric thickening. Careful examination of the other organs of the body revealed no evidence of organic disease. Vaginal extirpation was performed in the usual way on August 5th. There was little shock and for two days the patient progressed favourably. She then commenced to be sick and this lasted for four days. The temperature remained normal and the bowels acted freely. On the sixth day the sickness became fæcal and no flatus was passed. The pulse now rose to 120. It was evident that intestinal obstruction had supervened, possibly from adhesion of bowel to the stump of the broad ligament. The abdomen was opened. I found that the end of the broad ligament beyond the upper ligature on the right side was necrotic and a coil of ileum was adhering to it. There were no signs of general peritonitis. The coil was separated, but no relief was given and the patient died on the ninth day after removal of the uterus. No post-mortem examination was obtained. In this case I cut the upper ligatures short and drained as usual with

gauze. Owing probably to the debilitated condition of the patient the usual adhesions occluding the peritoneal cavity did not form, and I believe the upper end of the broad ligament then became infected from the vagina. It is in these cases wiser to leave all the ligatures long and to draw the stumps of the broad ligaments well down into the vagina.

CASE 6. *Multiple fibroids; prolapse; hypertrophy of the cervix.*—The patient, aged forty-five years, unmarried, was sent to me by the late Dr. Hugh Moss in February, 1897. She had suffered severely from sacralgia for six years and for some months had been unable to go about. The pain was not relieved by rest. She complained also that the womb came outside the vagina. Menstruation had been profuse for the preceding two years, lasting seven days. On examination the cervix was found to lie outside the vulva, due to hypertrophy of the vaginal portion. The uterus was very bulky and a firm, rounded mass filled up the pelvis reaching to the promontory of the sacrum. The sound passed forward 4½ in. and a mass was also felt in front of the uterus. The diagnosis of multiple fibroids was made. Some months later, as she became quite incapacitated, I advised total removal of the uterus. The patient was admitted to a nursing home in February, 1897, and a few days later the uterus was completely removed per vaginam. The operation was tedious owing to the bulk of the tumours which formed a mass of the size of a fœtal head. The appendages were healthy and were not removed. Since that time the patient has been well and able to carry on a business. The uterus showed great hypertrophy of the vaginal portion of the cervix which measured 2½ in. in length. A large fibroid occupied the posterior wall of the uterus and similar tumours were present on the anterior wall and the fundus uteri.

CASE 7. *Multiple fibroids; cystic ovary; pelvic peritonitis.*—The patient, aged thirty-six years, was unmarried. She had suffered from constant pelvic pain for ten years. This was felt chiefly in the back and iliac regions and was much aggravated during the menstrual periods. Menstruation began at the age of sixteen years. It was of the twenty-eight-day type, lasting from three to four days. Pain was not a marked feature during the first years, but it had gradually become more severe. She was quite unable to make any exertion and was confined to a couch. No history of infection could be obtained, but she had been under treatment for many years without receiving any marked relief. The vagina was small, the cervix was high up, and the uterus was antiflexed. The fundus was pushed to the right side by a firm mass in the left broad ligament. The right ovary was enlarged, prolapsed, and adherent. There were also numerous peritoneal adhesions. As all previous measures had failed I advised total extirpation of the uterus. This was performed in December, 1897. The mass felt on the left side was an intra-ligamentous fibroid of the size of a large orange. The right ovary showed chronic inflammation and was cystic; it was therefore removed. The left ovary and tube were small and apparently healthy; I therefore, with a view of avoiding nervous sequelæ, did not take them away. Convalescence was rapid and uninterrupted. The patient left the home at the end of three weeks feeling quite well. Since then she has at times complained of back-ache and right iliac pain, much worse on walking, although nothing abnormal can be felt and the scar is not painful. There is, I believe, in this case a nervous element, and it illustrates the fact that even after a radical operation pelvic pain may persist in women of a neuralgic type.

CASE 8. *Uterine fibroids; pregnancy terminated by abortion twice.*—The patient, aged twenty-nine years, was sent to me by my friend, Dr. E. J. Carruthers. She had been married for seven years and had two children living, aged five years and four years respectively. Since 1896 she had been twice pregnant and on each occasion it had been necessary to induce abortion on account of a fibroid tumour in the left broad ligament. This rapidly enlarged during each gestation, causing intense pain and obstructing the lower segment of the uterus. In July, 1897, when I saw her she was again three months pregnant. She had been in bed for six weeks with severe pain in the left side of the abdomen. On examination an irregular mass was felt reaching up to the umbilicus. The body of the uterus could be made out lying to the right and above the tumour. Per vaginam the fibroid mass filled up the left side of the pelvis, displacing the cervix to the right. It was evident that a living child could not be obtained *per vias naturales* and I did not feel justified in advising the patient to wait until full term and then submit to Cæsarean section or to Porro's operation. I therefore recommended removal of the uterus. The tumour and pregnant uterus were too bulky to permit of removal per vaginam, so I introduced a tent and the next day evacuated the contents of the uterus. A week later as the tumour had much diminished in size I was able to remove the uterus per vaginam. The broad ligaments were thick and vascular requiring numerous ligatures. Dense peritoneal adhesions were found over the posterior wall of the uterus and over the tumour, thus accounting for the severe pain from which the patient suffered so much. The ovaries and tubes were normal and consequently were not removed. The patient made a rapid recovery and returned home in three weeks. Since that time she has been in excellent health. The tumour was an interstitial fibroid growing out into the left broad ligament and involving the whole side of the body of the uterus, the uterine cavity being displaced upwards and to the right. A fibroid tumour also occupied the fundus uteri and a similar tumour was present in the cervix. This case is of special interest since large fibroids at the age of twenty-nine years are very unusual.

CASE 9. *Chronic metritis; pelvic peritonitis; old pelvic abscess.*—The patient, aged forty-one years, who had had three children, the last of whom was born eight years ago, was sent to me in May, 1896. She complained of constant pelvic pain with severe dysmenorrhœa. The symptoms dated from her last confinement. She was then in bed for three months, her illness resulting in profuse discharge of pus from the bowel. This at the time gave great relief, but she had been a chronic invalid ever since, unable to undertake any active exertion and suffering from repeated attacks of pelvic peritonitis. Examination revealed laceration of the perineum, chronic retroflexion of the uterus, and lacerations and erosions of the cervix. The fundus was firmly adherent in the floor of Douglas's space. To the right of the uterus was a dense mass of adhesions in which under anæsthesia an enlarged ovary and tube could be recognised adherent to the anterior wall of the rectum. Since palliative treatment by rest, tampons, &c., had been persevered in for years without obvious improvement I advised complete extirpation of the uterus and appendages. The patient was admitted into a nursing home in July, 1896, and vaginal extirpation of the uterus was performed. The adhesions in Douglas's space and the anterior wall of the rectum necessitated great care. After removal of the uterus the right appendages were enucleated and taken away. The left ovary and tube were small and as they did not cause pain I left them. The patient progressed very favourably and returned home in three weeks feeling quite well. Two months later she again complained of pain in the regions of the left appendages and I found that there was now an obvious left tubo-ovarian swelling. A few days later I opened up the scar and removed the left ovary and tube. There were no adhesions but a hydro-salpinx had developed in the tube and the ovary showed chronic atrophic inflammation. The patient went home a fortnight later and since then has been very well, although the artificial menopause induced some nervous disturbance and latterly she has suffered from chronic rheumatism.

CASE 10. *Chronic metritis; double pyosalpinx.*—The patient, unmarried, aged twenty-four years, was first seen by me in September, 1896, in consultation with Dr. F. W. Warrington. At this time she was suffering from a severe attack of pelvic peritonitis of gonorrhœal origin. She remained in bed for six months, but at the end of that time there was little real improvement. Every attempt at getting up caused a fresh attack of inflammation. In February, 1897, I again saw the patient. Her general condition was excellent. The examination showed that the uterus was very bulky, tender, and acutely anteflexed. The cervix showed abundant purulent discharge. At each side of the pelvis large adherent tubo-ovarian swellings were felt. On the right side a mass was firmly adherent in the floor of Douglas's pouch. In cases of this kind abdominal section has generally been performed, the appendages being removed and the uterus remaining *in situ*. The after-results of these cases have, however, been often disappointing. The diseased uterus remains behind and the pelvic pain with inflammatory thickening of the stumps of the appendages is present. In this instance, as both appendages were extensively diseased, I decided that the safer operation and the one more likely to give a permanent cure was the removal of the uterus and appendages per vaginam. On Feb. 18th I performed the operation in the usual way. On opening Douglas's pouch about 6 oz. of dark blood and clots escaped, evidently an old hæmatocele. After removing the uterus the

right ovary and tube were nucleated from dense adhesions. The tube contained 2 oz. of pus; there was also an abscess in the ovary. The left appendages were similarly removed. On this side, however, the adhesions to the sigmoid flexure necessitated great care. The pelvis was now flushed out with sterilised water and the vaginal vault was sutured in the usual way. The patient had little shock and made a rapid recovery. She is now in perfect health and in this instance there have been no nervous sequelæ attributable to the artificially induced menopause.

In these cases the ligature has always been used to control the broad ligaments and I have no experience of the use of clamps for this purpose. It is worthy of note that Doyen and others who have advocated clamp forceps have again reverted to the use of the ligature. There is no doubt that a slight saving of time is effected by using forceps, but it is only exceptionally that this becomes a factor of importance. The bladder having been widely separated the utero-vesical pouch is opened and then an opening is made in the pouch of Douglas. The broad ligaments are now ligated in sections from below up. In passing the ligatures I have always used the notched needle as recommended by Professor Sinclair. The ends of all the ligatures are left long. After removal of the uterus the condition of the appendages must be carefully investigated. If they are diseased it is easy to draw them down into the vagina and to form a pedicle which is tied close to the brim of the pelvis. In inflammatory cases great care is required in separating adhesions to omentum and bowel, but after the uterus is taken away these can be readily brought into view and dealt with. If the appendages are high up and a ligament cannot safely be passed a pair of pressure forceps will control the ovarian vessels at the outer border of the broad ligament and these may be removed in twenty-four hours. The cavity of the pelvis is now flushed out with saline solution and by traction on the ligatures the whole of the broad ligament can be brought into view and any bleeding point secured. Sometimes, especially in cases of cancer, the cut surfaces of the vaginal wall bleed freely and may require a ligature. The central portion of the gap in the vaginal roof together with the peritoneal edges are now united by continuous or interrupted silk sutures, any prolapse of bowel meanwhile being avoided by the introduction of a small sponge. In this way the raw area on the posterior wall of the bladder is covered over and a smooth peritoneal surface is presented towards the abdominal cavity, thus diminishing any tendency to prolapse or adhesion of bowel or omentum. A strip of sterilised moist gauze is now passed along the ligatures on each side to provide efficient drainage and the ends of the threads are cut off short just within the vagina. The vagina is now packed with gauze. This dressing I often leave for four or five days if all goes well. In cancer cases, however, it usually becomes offensive and must be removed earlier. Gauze should be introduced in the vagina for a week. After this time douches may safely be given. The threads become loose and separate from the fourteenth to the twenty-first day. This, however, is often associated with slight pyrexia beginning about the tenth day and the discharge becomes offensive—due to infection of the stump of broad ligament and the silk from the vagina. To avoid this drawback some operators cut off each ligature short after the ends are tied and then close the peritoneal cavity. The silk is then usually absorbed and causes no further trouble. In the one fatal case I cut off the ligatures short and the stump still became infected from the vagina, resulting in adhesion of a coil of ileum. In cases of cancer where the tissue may be infected it is impossible to ensure complete asepsis, and I believe that it is best in these cases to leave the ends of the threads long and to draw the stump of the broad ligament well down into the vagina, passing a strip of gauze above it to provide efficient drainage. If healthy reaction occurs the peritoneal cavity is occluded within thirty-six hours and all danger of infection or adhesion of a coil of bowel is at an end. In removal for fibroids or displacements the ligatures may safely be cut short and then care should be taken to completely close the peritoneal cavity, leaving only a small opening at each side for the introduction of a gauze drain. If the ligatures are cut short it is specially important to suture the vaginal vault, since local infection of the stump of the broad ligament from the vagina is very likely to occur, leading to troublesome convalescence and in some cases to obstruction of the bowels. It has not been shown, however, that there is any special disadvantage in leaving the end of the threads long, although local infection almost invariably occurs. The threads always come away, and since no foreign material is left behind a sound scar inevitably results.

Manchester.

# Clinical Notes:

## MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

### A CASE OF PROTRUSION OF THE SMALL INTESTINE CAUSED BY LACERATION OF THE ABDOMINAL WALL; RECOVERY.

BY J. R. JENKINS, M.D. ABERD.

ON Sept. 22nd, 1898, I was called, with Mr. William D. Jones and Mr. T. G. Jenkins, to see a patient, aged twenty-two years, who had met with a bicycle accident. It appeared that he was "coasting" down a slight incline and at a turn in the road collided with a pony-cart driven in the opposite direction. The right or off shaft of the cart struck the cyclist on his right thigh and gliding upwards over the groin penetrated the abdominal wall tearing this open to the extent of about 7 in. He attempted to get up from the ground but at once discovered that he had a protrusion of bowel. He felt faint and was very sick, but did not lose consciousness. He was picked up by the occupants of another carriage coming up in a few minutes and conveyed to his destination, a mile off, and there put to bed.

We found the patient excited, just recovering from the effects of the shock he had experienced. He begged for chloroform which we very shortly administered to him and then proceeded to examine the seat of injury. We found a protrusion of the small intestines to the number of six or seven coils and these forced out to an extent of 5 in. It seemed that the shaft had entered at the inner and upper point of the right inguinal region, tearing the structures upwards to the extent of 3 in. and downwards nearly to the symphysis pubis, fully 4 in. We attempted to return the bowels but that we found to be no easy matter owing to much distension of the bowels and a tight grip by the wound and it was not until I made a deep incision through the median edge of the wound that we were able to commence the return of the protruded bowel. Owing to the overlapping form of the wound internally it proved quite impossible to return and replace the bowels without such incision, but with the altered form of the tear we had no great difficulty. There was no scratch or injury to the intestines so that after due antiseptic treatment they were replaced coil by coil. The wound was brought together by a dozen wire sutures and iodoform was freely applied. A support by a sufficient pad of Gamgee wool and a firm bandage over all completed the operation.

The patient soon recovered from the effects of the chloroform which he had taken fully for upwards of an hour. He was given 1 gr. of opium and this was continued every four hours for the first two days and at longer intervals up to the fifth day. The sutures were removed one by one, the first on the fourth day; the temperature had then risen to 101° F., the highest recorded. The last suture was removed on Oct. 4th (the twelfth day). With the exception of the instance above recorded the temperature was normal throughout. Retention of urine gave trouble for seven days. There was no action of the bowels for five days when an enema was administered with the desired effect. No natural action of the bowels took place until Oct. 13th (the twenty-first day). The patient was able to be dressed and to get up on the 10th (the eighteenth day). He went downstairs on the 12th and walked out on the 13th (the twenty-first day). He returned to London on Oct. 20th and to Oxford on the 27th, five weeks from the date of the accident. By a recent letter he informs me that he is quite well and suffers no inconvenience.

Ruthin.

## THREE CASES OF CONGENITAL DEFICIENCY OF BOTH PATELLÆ IN RELATED INDIVIDUALS.

BY MAURICE G. PEARSON, M.B., B.SC. LOND., F.R.C.S. ENG.,
ASSISTANT RAILWAY MEDICAL OFFICER, DE AAR, CAPE COLONY.

THE three cases here related, all in coloured children, illustrate different degrees of this deformity and are interesting as showing the extent to which growth is an element in its cure. The first two are the only children of one father, while the third is the child of his brother and has several brothers and sisters whose patellæ are natural.

CASE 1.—In this patient, a girl aged five months, there is a very noticeable transverse groove in the position of each patella and the finger can be pressed in deeply between the condyles of the femur; the patella itself can be felt as a nodule about ¼ in. in diameter; the quadriceps tendon and ligamentum patellæ are narrow cord-like bands. Although of course the child is as yet unable to walk she can extend her knee quite well. The movements and limits of movements are natural.

CASE 2.—A sister of the above, aged four years, has now patellæ which are only slightly smaller than the average. The interesting point about her is the fact that her mother says her knees were as an infant exactly like her sister's, that she was very long in learning to walk, and that even now she cannot walk for long and is "shaky on her legs."

CASE 3.—A cousin of the others, aged seven months. This girl also has very small patellæ but not so small as Case 1. She has also the transverse groove less well marked.

Unfortunately I am not within reach of any skiagraph apparatus. I should be glad to hear from others who have met with these cases whether there is always such a tendency to cure as there has been in Case 2 mentioned above.

Cape Colony.

## A NOTE ON A CASE OF SWALLOWING FALSE TEETH.

BY J. S. SHARMAN, L.R.C.P. LOND., M.R.C.S. ENG.

EARLY on a Sunday morning a lady swallowed three false teeth attached to a gold plate. At one end of the plate was a sharp hook to fit round the next tooth and at the other two sharp points; the measurement longitudinally was $1\frac{5}{8}$ in. and transversely $\frac{6}{8}$ in. The patient was awakened by a sense of suffocation. She pressed her throat and she stated that she could feel "them go down." There was practically no discomfort and the teeth were passed on the following Friday morning. On the Thursday the Roentgen rays were used but the teeth could not be detected, although from the back one could plainly see through the body, as was proved by placing a small coin over the region of the abdomen. The operator came to the conclusion that the teeth must be hidden by one of the crests of the ilia, as was no doubt the case.

It is worthy of note that experiments on the cadaver have been of little use to test the capability of the stretching of the sphincter of the pylorus. In these experiments a five-franc piece split the sphincter, whereas in the living subject spoons and forks have passed without discomfort. The ileo-cæcal valve and vermiform appendix give more trouble in children than in adults. In most of the text-books very little or nothing is stated besides the various operations as to the treatment of these cases. Rest in the recumbent position and possibly on the right side is desirable, and for diet boiled white of egg, boiled cream, potatoes, rice, and porridge, and if there is any discomfort opium should be administered. In some cases laxatives have been used with success, but this must greatly depend upon the form of the foreign body. In one case where false teeth were swallowed it is stated that oakum, figs, and raisins were given and after a week the body was expelled with the oakum and figs attached to the irregularities of the plate and teeth.

Norwood, S.E.

# A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

**Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum propriis collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.**

## NORTH-EASTERN HOSPITAL FOR CHILDREN.

### THREE CASES OF DIPHTHERITIC CONJUNCTIVITIS.

(Under the care of Mr. SYDNEY STEPHENSON.)

IT is now generally recognised that the true criterion of the diphtheritic nature of a membranous conjunctivitis is the presence of the Klebs-Löffler bacillus, but statistics are wanting as to the frequency of the occurrence of this micro-organism in conjunctivitis. The value of the anti-toxin in diphtheritic conjunctivitis is admitted by nearly all observers[1] and Coppez and Funk[2] consider that the fact is beyond dispute. The failures which have occurred seem to have been in cases in which the bacteriological diagnosis had not been made. The benefit resulting from the hypodermic administration of the antitoxin should not be permitted to cause any relaxation in the local attempts to make the conjunctiva aseptic, for it is far better to prevent the formation and absorption of toxins than to neutralise them after they have entered the body. The presence also in the membrane of other virulent micro-organisms is an important argument in favour of the local application of antiseptics. The use of quinine lotions, strongly advocated by Mr. Tweedy,[3] has not received such general support as we believe it to deserve. For the notes of the cases we are indebted to Mr. C. G. Burton, resident medical officer.

CASE 1.—A girl, aged eighteen months, was taken to the ophthalmic out-patient department of the North-Eastern Hospital for Children on April 20th, 1898. Ten days previously both eyes were noticed to be red and the lids began to swell and discharge matter. She also lost her appetite, became paler, and was feverish at night. On examination there was found to be photophobia in both eyes, the eyelids were swollen, and there was a whitish discharge which was tenacious and stripped off like a membrane. A diagnosis of acute ophthalmia was made. A lotion of perchloride of mercury (1 in 5000) was ordered to be applied six times a day. Three cultivations were taken; one was sent to the Clinical Research Association, one was taken away by Mr. Stephenson, and one was placed in the incubator at the hospital. The Association reported on April 22nd that the growth consisted of Klebs-Löffler bacilli and staphylococci; Mr. Stephenson found Klebs-Löffler bacilli which Mr. Burton also found in his cultivation. The patient was admitted into an isolation ward on April 22nd. On admission she looked very ill and pale and wanted to lie down. She showed marked signs of rickets. The mouth, tonsils, and pharynx were normal in appearance. No physical signs were observed in the chest; there was no cough or stridor. There was photophobia in both eyes; both lids of each eye were swollen and stuck together. The surface of the conjunctiva was red and swollen, there being a distinct membrane which was easily detachable and which left a raw surface. The ocular conjunctiva was slightly congested but the cornea was quite clear. The cervical glands were enlarged as well as the submaxillary and preauricular glands on both sides. The skin of the face round the eyes and the nose was excoriated. There was a slight watery discharge from both nostrils and also an offensive discharge from the left ear; there was no discharge from the vulva. Antitoxin freshly obtained from the Royal College of Surgeons (7 c.c. containing 2000 units) was at once injected into the flank. The eyes were washed every two hours with distilled water. No drugs were given. On

[1] Morax: Annales d'Oculistique, tome cxiii., p. 238.
[2] Archives d'Ophthalmologie, November, 1895.
[3] THE LANCET, Jan. 24th, 1880, p. 125, and Feb. 21st, 1880, p. 282.

the 23rd the temperature remained below 100° F. The urine was acid, clear, and contained no albumin. The knee-jerks were present. A cultivation was taken of the discharge from the nose. On the 24th the eyelids were less swollen and the discharge was less, but fresh membrane still formed during the night. On the 25th no growth had taken place from the cultivation of the discharge from the nose. There was less photophobia but fresh membrane still formed. On the 26th 1000 units of antitoxin were injected. The temperature remained normal and the urine was free from albumin. On the 28th an erythematous rash was visible on the abdomen especially round the injection wound. The patient's general condition had much improved and she now sat up and talked. There was less photophobia. No membrane formed on the 28th, but there was still a discharge of mucus. On May 1st the child had further improved. The antitoxin rash had disappeared. The inflammation of the eyelids was still present and was now thought to be due to other than the Klebs-Löffler bacilli; the local treatment was altered, nitrate of silver (10 grains to 1 oz.) being painted on the conjunctiva once a day and the eyes washed with a lotion of perchloride of mercury (1 in 5000) every three hours. On the 7th the eyes were free from any discharge, but the lids were thickened and the patient had a small amount of photophobia. She was kept in the hospital in order to improve her general condition and was given medicine for the first time. On June 15th she was discharged quite well. The eyes were quite normal and her general condition was much improved, but she was still a weakly infant. The knee-jerks were present all the time that she was in the hospital and no signs of paralysis were observed.

CASE 2.—A boy, aged three years, was taken for the first time to the ophthalmic department of the North-Eastern Hospital for Children on April 6th, 1898. The left upper eyelid was swollen and red and overhung the lower lid. There was a thin muco-purulent discharge with glutinous material stretching between the lids when the latter were opened; some easily detachable membrane was on the palpebral conjunctiva. Cultivations were taken but the case was at once diagnosed as one of diphtheritic conjunctivitis and the patient was immediately admitted into an isolation ward. It was stated that the left eye began to be affected five days previously but that otherwise the patient had been in very good health. There was some infiltration on the outer side of the cornea. Small impetiginous spots were present on the forehead (? diphtheritic). The cervical glands on both sides of the neck were enlarged and the left preauricular glands could be felt. The patient seemed to be quite well. The temperature was 99° F. and the pulse was good. The throat, nose, and larynx were normal. No signs in the chest were noted. The urine was acid, clear, and contained no albumin. The left eye was washed with a solution of perchloride of mercury (1 in 3000) every four hours and an aseptic pad was kept over the eye. Antitoxin from the Royal College of Surgeons (7 c.c. in 2000 units) was injected into the right flank. The eruption of the face was treated with a dilute ointment of ammoniated mercury. On the 8th the patient ate and slept well; the temperature remained normal. The eyelid was less swollen and there was less discharge, but still a distinct membrane could be stripped off and the membrane gradually formed again in a few hours. The urine was found to contain a trace of albumin. On the 12th the patient's general condition was good. There was a slight discharge and a slight membrane still formed. The impetigo of the face was cured. On the 15th no membrane formed, but there was still a sticky discharge. The lids were not swollen and the cornea was quite clear. The urine was normal. On the 22nd the patient was sent home. His eyes looked normal; a very slight discharge was noticed on his arising in the morning. The urine was normal and the knee-jerks were present. On the 27th he was attending as an out-patient; he had had the eyelids painted with a solution of nitrate of silver (10 grains to 1 oz.) every day. Some blepharitis ulcerosa of the left upper lid was present but otherwise he was in very good health. On May 24th the patient was quite free from discharge, the knee-jerks were present, and no symptoms of paralysis had developed.

CASE 3.—A girl, aged eight months, attended the ophthalmic department of the North-Eastern Hospital for Children for the first time on July 19th, 1898. There was a history of swelling and redness of the left eye noticed seven days previously, photophobia and discharge occurring three days later. She had been feverish and seemed very ill for two days before attending at the hospital. From previous experience Mr. Burton at once admitted the child to the isolation ward and took three cultivations of the discharge. On admission the child was very pale and seemed to be very ill. The temperature was 99 6° F. and the pulse was feeble and rapid. The left eyelids were swollen and red; a thick glutinous discharge on the palpebral conjunctiva was seen on opening the lids which were stuck together. The cervical glands on both sides were enlarged and the left preauricular gland could be felt. The throat, mouth, and nose were normal. There was no discharge from the ears and nothing was seen on the vulva. 7 c.c. of antitoxin (2000 units) were injected into the right flank. The left eye was washed with distilled water only, no drugs being given, and the eye was carefully bandaged with an aseptic pad. On the 20th the child still seemed to be very ill. The temperature ranged between 99° and 101°. The lids of the left eye were swollen and red and some muco-pus was discharged from the palpebral fissure. The lids could be easily everted and the palpebral conjunctiva was concealed by a thick greyish membrane leaving a smooth surface which did not bleed. The urine was acid, clear, and contained a small amount of albumin. Klebs-Löffler bacilli were reported to be present in the cultivation which had been sent to the Clinical Research Association; they were also found by Mr. Stephenson on his agar cultivation; and in the cultivation grown at the hospital were found Klebs-Löffler bacilli and staphylococcus citreus. On the 22nd membrane still formed on both lids but was easily stripped off, leaving the conjunctiva below smooth and red but not bleeding. The urine contained a trace of albumin. The knee-jerks were not obtained. The temperature was now normal and the child's general condition had much improved as she took her food well and slept most of the day. On the 23rd membrane still formed. She could open her eyes well. The knee-jerks were both obtained and were probably present on the 22nd. On the 24th no membrane formed. The palpebral conjunctiva was thick and red; there was very little discharge. The cornea was clear. The left preauricular gland was still enlarged. The urine was normal. On August 3rd the patient was sent home. The discharge had quite stopped, the eyelids looked normal, and the child was quite well. The urine was normal and the knee-jerks were present. On the 31st the eyes had remained quite well and no signs of paralysis had developed.

*Remarks by* Mr. BURTON.—1. The frequency of the disease. During the past year about 200 cases of conjunctivitis have been treated in the ophthalmic department of the North-Eastern Hospital for Children; 6 of these have been found to be chiefly due to the presence of Klebs-Löffler bacilli—i.e., 3 per cent. This percentage is probably too high; but if every case of conjunctivitis had cultivations taken it would probably be found that the specific organism is present in at least 1 per cent. 2. The danger of non-recognition of the disease. There is no doubt that the discharge from the eyes of these cases is capable of setting up severe laryngeal diphtheria and as a rule no care at all is taken by hospital patients. The mother frequently uses her own handkerchief to wipe the discharge from the eyes of the little patient and at other times the noses of the other little ones of the family. These poor children always sleep two and sometimes three in a bed and use a common towel even at school. 3. The difficulty of diagnosis. The only pathognomonic sign is the presence of the diphtheria bacilli. The formation of membrane occurs frequently in cases of conjunctivitis when there is no suspicion of the case being diphtheritic. The underlying conjunctiva is red, raw, and rough, although this is not always so in diphtheritic and is sometimes so in non-diphtheritic conjunctivitis. The enlargement of the preauricular glands, though present in these cases, may not be due to the diphtheria bacilli. Diphtheritic paralysis has occurred after simple diphtheritic conjunctivitis and would make the diagnosis conclusive. 4. Type of the disease. Although these three cases appear to belong rather to the "croupous" than the diphtheritic variety of conjunctivitis, nevertheless as the specific organism was always present they fully deserve the name of "diphtheritic." 6. Treatment. Although in these cases antitoxin was the only treatment adopted in each case other bacilli were present besides the Klebs-Löffler, so some local treatment should be added, such as washing the lids with a solution of perchloride of mercury. If the discharge persists cauterisation with nitrate of silver should be tried. The greatest

care should be taken that the discharge is not conveyed to the non-affected eye or to the mouth or vulva. 6. Prophylactic treatment. If by chance any diphtheritic membrane should be coughed by a patient into the eye of a medical man or of a nurse antitoxin should be given and the lids should be washed frequently with a solution of mercury and painted with a solution of nitrate of silver (10 grains to 1 oz.). For permission to record the notes of the above cases I am indebted to Mr. Stephenson.

## VICTORIA GENERAL HOSPITAL, HALIFAX, NOVA SCOTIA.

### A CASE OF BRADYCARDIA OCCURRING IN A YOUNG MAN; NECROPSY.

(Under the care of Dr. C. DICKIE MURRAY.)

DR. MURRAY'S very striking case of bradycardia is well worthy of being recorded. The complete absence of any effect from the administration of drugs which usually accelerate the action of the heart is very noticeable. The slowness of the pulse was not so marked as has been described, for F. V. Boulioubach of Moscow is quoted in the *Universal Medical Journal* of Philadelphia (September, 1895) as having observed one case in which 14 and on some occasions only 8 heart-beats were counted in a minute; though in such a case it is not improbable that heart-beats were missed. In Dr. Murray's case we are not told what was the condition of the peripheral vessels.

A seaman, aged twenty-one years, was admitted to the Victoria General Hospital, Halifax, Nova Scotia, on Nov. 9th, 1897, being one of the crew of a ship which was wrecked off that port on Nov. 7th. He complained of pain in the præcordial region, dizziness, dyspnœa, and occasional convulsive seizures. His father was living and well, his mother died from cancer, and he had two sisters who were well. His family history was otherwise unimportant. He had been at sea for the previous five years and had been constantly exposed to rough weather; he said that he was scarcely ever dry. He had used alcohol and tobacco freely. There was no history of venereal disease. He had suffered from an attack of scarlet fever in childhood and about five years before admission to the hospital he was confined to bed for a fortnight by an attack of pain and soreness in the knee-joints and ankle-joints; the pain and soreness disappeared under treatment and were probably rheumatic. He dated his present condition back to four years ago when one day after running he was seized with a sudden pain over the heart, followed immediately by severe dyspnœa which continued for some days so that he was unable to work. The pain over the heart was followed by a sensation as of something bursting. His condition improved and he was able to return to work, but he had been troubled ever since by more or less pain and dyspnœa which were increased by exertion and were sometimes worse after eating. Since the first attack he had had several convulsive seizures which occurred suddenly with little or no warning. During these attacks he was quite unconscious and was told that he kicked and screamed for some minutes. He felt somewhat weak for two or three days following such a seizure. For the past year the pain and dyspnœa had been getting worse, so that he had not been able to do much hard work.

On examination the patient was found to be a well-nourished and very muscular man about 5ft. 4in. in height and weighing 130lb.; he was bright and intelligent, his cheeks were ruddy, and he had no characteristic morbid appearances. All the systems except the circulatory were normal. As regards the circulatory system there was pain in the præcordia with dyspnœa and dizziness. A faint feeling was present which did not so much seem to depend upon exertion as upon his assuming the upright position. The dyspnœa often prevented him from sleeping at night. Sometimes the præcordial pain was increased by eating and was accompanied by a feeling of distension in the epigastrium. The cardiac impulse was hardly perceptible to the eye, but on palpation it was found to be slightly displaced downward and to the left; it was not strong but was felt to be longer or not so abrupt as the normal impulse. This impulse occurred about 26 or 28 times a minute. On percussion the cardiac dulness was found to be enlarged downwards and to the left. On auscultation a loud rough murmur was heard with the cardiac systole. This murmur was audible in the mitral area and slightly in the axilla, but was not transmitted to the back. It was also heard in the tricuspid area and over the whole of the heart, but loudest in the aortic and pulmonary areas, where another murmur was also heard immediately following the systole but not quite so loud as the systolic bruit. The murmurs could be heard along the carotid and subclavian vessels. The radial pulse was fairly strong and regular but somewhat delayed, occurring from 26 to 28 times a minute. There was no cyanosis or œdema or any abnormal condition of the superficial vessels.

Various drugs were administered from time to time with the view of accelerating the pulse-rate. Among those tried were alcohol which was given in moderate quantities during the whole of his stay in the hospital, atropin which was given at the suggestion of some members of the branch of the British Medical Association before whom he was exhibited, nitro-glycerine, strychnine, and digitalis, but none of these had the slightest appreciable effect upon the pulse-rate. One afternoon under the influence of laughter and excitement his pulse registered 42 for a short time. The cardiac murmurs were verified by numerous medical men and he was exhibited before, and examined by, members of Dr. Murray's class of clinical medicine. On the afternoon of Jan. 1st, 1898, the patient, in company with two convalescent patients, left the hospital grounds and went into the town. They returned to the hospital late at night intoxicated and the patient was very sick and vomited much during the night. The next morning they were discharged from the hospital and the patient went to a boarding-house. On the following morning (Jan. 3rd) he called at Dr. Murray's residence and asked him to prescribe for him as he was feeling very miserable. Dr. Murray suggested that the discipline of the hospital having been vindicated he would give the patient an order for readmission, of which he gladly availed himself. During the next twenty-four hours he was very quiet, but beyond being given a small quantity of alcohol four or five times a day he was under no medical treatment. On the 4th at 12 o'clock, on returning to the ward from the dining-room where he had eaten very little, he suddenly fell forward and in spite of attempts to resuscitate him he expired in about five minutes.

*Necropsy.*—A post-mortem examination was made by Dr. W. H. Hattie, pathologist to the hospital, and the various organs were carefully examined. No abnormal condition was found in connexion with any organ but the heart and the lungs. The pleura of the left lung showed adhesions extending from the second rib to the base of the lung; these were separable by the hand. The right lung also showed adhesions, but these were not so extensive and were more easily separated. The heart weighed 14 oz.; all the valves were in perfect condition and were free from vegetations. The left side of the heart was hypertrophied and the muscle was hard and resistant; the right side was soft and flabby. The heart muscle was very friable and on being examined microscopically showed evidence of having undergone fatty change of an infiltrative character with possibly some true degeneration. The brain which was hardened in fluid and examined showed no morbid condition.

*Remarks by* Dr. MURRAY.—The case of bradycardia described above presents some features which make it desirable that it should find permanent record in the too scant literature referring to this symptom of disease. The ordinary text-books make but brief reference to this condition and I have found it difficult to get access to any very complete sketch of the clinical history of such cases or of the various pathological lesions usually accompanying them. The case presents several features of more than usual interest—namely: (1) the youth of the patient and his apparently well-nourished and robust condition; (2) the extreme slowness of the pulse which was unmodified by any drug tried; (3) the presence clinically of well-marked and diffuse murmurs which were not accounted for by any valvular conditions; and (4) the discovery post mortem of a degenerated heart muscle. The causes of bradycardia have been classified as follows: (*a*) cardiac alterations—fatty changes, stenosis of the coronary arteries, and presence of other degenerations and tumours of the heart; (*b*) irritative lesions of the central nervous system and vagus and injuries to the spinal cord in the cervical region either the result of trauma or the growth of tumours; (*c*) paralysis of the accelerator nerves and disease of the cervical ganglia; and

(*d*) bulbar ischæmia and venous hyperæmia of the medulla by sclerosis of arteries or by compression of the superior vena cava. This case was probably due to the first of these causes, the presence of fatty changes in the heart muscle being the only discoverable lesion. I regret that a careful examination of the cervical ganglia and of the nerve-supply of the heart was not made. The presence of occasional convulsive seizures reminds one that in the case of Napoleon I. Corvisart, his physician, states that the Emperor's pulse was usually 40 and he was subject to occasional epileptiform seizures. A case has been recorded[1] in which the pulse was 40, the apex beat was imperceptible, and a loud systolic murmur was present. On a necropsy being made the heart was found to be hypertrophied and dilated and its walls flabby, but the valves were not affected. The slowing of the blood current must in some way produce the sounds heard.

## LEICESTER INFIRMARY.

### A CASE OF ENTERIC FEVER WITH SEVERE PERIOSTEAL LESIONS; INJECTIONS OF ANTI-STREPTOCOCCIC SERUM; RAPID RECOVERY.

(Under the care of Dr. ASTLEY V. CLARKE.)

PERIOSTITIS is a well-recognised complication of typhoid fever and two varieties seem to occur; in one the local lesion is caused by the typhoid bacillus, but in the other it is the result of a secondary streptococcic infection. The improvement which followed the injection of anti-streptococcic serum was very striking and if not due to a coincidence it is in favour of the view that the periostitis was the result of the presence of the streptococcus. The value of a bacteriological examination in all such cases can hardly be exaggerated. For the notes of this case we are indebted to Mr. R. H. Fagge, house physician.

A boy, aged thirteen years, was admitted to the Leicester Infirmary on Oct. 2nd, 1898. He had been unwell for eleven days, complaining of headache, pains in the back, and restlessness; there had been no diarrhœa. On admission the abdomen was distended and typhoid spots were well marked; the spleen could not be felt. The tongue was furred and sordes were on the lips. The urine contained a trace of albumin and gave Ehrlich's reaction well. His pulse was 117 per minute and soft and his temperature was 103·4°F. On the 5th a symmetrical papular rash appeared all over the chest and abdomen. The boy grew steadily worse till the 12th, but improved from then until the 16th when pain and swelling were first noticed in the first phalanx of the right ring finger. As the swelling increased an incision was made into it on the 18th, but no pus was evacuated. The patient grew more apathetic and the temperature began again to rise. Further incisions were made on the 22nd and the 26th. On Nov. 4th as the swelling and inflammation of the finger were more marked amputation was performed and it was found that the whole of the periosteum had become separated from the bone, but the metacarpophalangeal joint had not been affected. The patient was still more apathetic and did not seem to understand anything which was said to him. No improvement had occurred by the 10th, for both the mental condition and the local condition were worse. A long incision was made over the metacarpal bone. On the 15th he was still unconscious with much delirium and as the temperature was oscillating between 99° and 102·6° 10 c.c. of anti-streptococcic serum (obtained from the British (now Jenner) Institute of Preventive Medicine) were injected into the left loin. Some local uneasiness followed the injection and the temperature rose to 102°, but shortly afterwards the temperature fell as by crisis to normal, the delirium vanished, and consciousness returned within twenty-four hours. Other injections of 5 c.c. each were given on the 16th, 17th, and 19th, and by the last date the patient was well advanced in convalescence. The hand improved rapidly after the first injection, the swelling and inflammation abating rapidly. On the 22nd raised "urticarial" rings developed around the sites of the injections and by the next day this rash had spread all over the body; it was accompanied by a slight rise of temperature and caused much irritation. From this time the patient rapidly put on flesh and was discharged from the infirmary on Dec. 12th well except for a small granulating surface on the hand. Unfortunately no cultures were taken from the local lesion of the hand when it was first open.

[1] Brit. Med. Jour., Sept. 10th, 1891.

# Medical Societies.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

### *Gonococcus Joint Diseases in Infants secondary to Purulent Ophthalmia.*

A MEETING of this society was held on Jan. 24th, the President, Mr. BRYANT, being in the chair.

Mr. CLEMENT LUCAS read a paper on Gonococcus Joint Disease in Infants secondary to Purulent Ophthalmia, with an account of 23 cases. He first drew attention to this disease affecting the joints of infants suffering from purulent ophthalmia in the *British Medical Journal* of Feb. 28th, 1885, more fully on July 11th, and again, with the addition of a third case, on Oct. 10th, 1885, in the same journal. Mr. R. G. Fendick published a case in support of the truth of the observation on Oct. 31st, 1885; but from that time no case seemed to have been published in this country and the authors of text-books were for the most part silent upon the subject. Abroad, however, this hitherto unrecognised joint affection of infants had attracted more attention, and Debierre in France, Zatvornitski in Russia, and Widmark in Germany, had each published a case before the end of the year 1885 in support of Mr. Lucas's contention that the joint inflammation was secondary to, and dependent upon, the ophthalmia. Mr. Lucas had now collected 23 cases, upon which he founded his present communication. The joint disease presented itself in two forms: (1) as a very acute arthritis accompanied with much swelling, tenderness, and redness, strongly suggesting a tendency to suppuration; and (2) as a subacute synovitis, giving rise to a good deal of effusion and pain on movement, but to little or no surface redness. Of the 23 cases collected 18 were cases of ophthalmia neonatorum inoculated during labour and 5 were cases of secondary inoculation in older children, the eldest being seven years of age. The ophthalmia generally appeared on the third day after birth. The joint disease showed itself more commonly towards the end of the second or during the third week of the ophthalmia. The knees were the joints most frequently affected, especially the left; any joints might be attacked, but the left wrist seemed more liable than the right; and Mr. Lucas offered as an explanation of the left knee and left wrist being specially selected the fact that they were more exposed to injury in the position in which an infant was usually carried by the nurse. Complete resolution might be anticipated and the inflammation usually ran a course of from three to five weeks. Bacteriological examination had shown that the gonococcus of Neisser was the cause of the ophthalmia and of the joint disease. Where suppuration took place there might possibly be a double infection. In two recorded cases this happened, streptococcus being present in one and staphylococcus in another associated with gonococcus. The affection differed from syphilitic joint trouble in appearing at an early period of life and in its more rapid course.

Mr. N. C. MACNAMARA said that he thought Mr. Lucas had fairly proved the association of joint disease with ophthalmia. He thought that secondary joint affections were due to products of inflammation rather than to organisms, as in several cases of gonorrhœal rheumatism he had failed to find the gonococcus in the synovial fluid. If the gonococcus were the cause he would expect suppuration to occur there as in the urethra. Personal predisposition was certainly an important factor in susceptibility to poisons. Mr. Macnamara thought that other forms of joint disease were traceable to suppuration, believing, for example, that some cases of chronic rheumatic arthritis were due to suppuration round decayed teeth, and the late Dr. Todd held that in some cases it was traceable to vaginal discharge. He thought that ordinary acute rheumatism was due to the absorption of morbid products developed in some way in the alimentary canal. He thought that knowledge of these morbid products would enable sound methods of treatment to be arrived at.

Mr. HIGGENS said that the condition must be very rare as although he had seen a very large number of cases of gonorrhœal ophthalmia in infants he did not recall one in which there was joint affection. He was not convinced that the presence of the gonococcus in the pus signified that the case was one of gonorrhœa.

Mr. R. BARWELL said that he had described the association of joint disease with gonorrhœal urethritis in 1861. Rheumatism after scarlet fever was the result of absorption of some poison and he saw no reason for hesitating to admit that joint disease might be an occasional concomitant of suppuration of the conjunctiva. It was rare probably because of the free exit of pus and in the case of gonorrhœa in the adult the freer escape of pus in the female was the probable explanation of the rarity of arthritis as a complication of gonorrhœa in women. Other forms of surface suppuration such as otorrhœa might give rise to arthritis, the arthritis subsiding as the otorrhœa yielded to treatment.

Dr. PYE-SMITH said that the paper helped to settle the nature of gonorrhœal synovitis. The nervous hypothesis was quite abandoned and the pyæmic theory was also disproved as suppuration did not occur unless there was a mixed infection. The difference in type between this form of arthritis in infants and in adults was very instructive particularly in the rapid development and the rapid recovery.

Mr. PEARCE GOULD agreed that the cases described were the same as gonorrhœal synovitis in the adult. He thought that the gonococcus had been repeatedly demonstrated in the fluid from the joint and he did not agree with Mr. Barwell that some morbid product was absorbed, believing that the entrance of this powerful organism produced alike the primary and secondary trouble. Probably the infrequence of joint trouble as a complication of gonorrhœal inflammation in infants was largely due to the fact that their joints were little exposed to injury or strain. He thought the view of Mr. Lucas that the secondary complication subsided in a parallel course with the primary affection was not borne out by general experience or by the cases quoted by Mr. Lucas, in one of which the joint disease did not appear until the ophthalmia had subsided.

Mr. A. E. BARKER did not hold it proved that all cases of joint disease associated with ophthalmia were due to the gonococcus alone but that there was a mixed infection, the pyogenic organisms preponderating in severe cases. He thought that the term "pyæmia" might be fairly applied to many cases and among those he would also place the cases of joint disease secondary to otorrhœa spoken of by Mr. Barwell.

Mr. HUTCHINSON asked as to the exact number of cases in which the presence of the gonococcus had been demonstrated. The question of diagnosis from syphilitic arthritis did not come up because in the infant any syphilitic joint disease was due to extension from the periosteum and was of a totally distinct character, but there was a form of syphilitic arthritis which came on later which was nearly associated with interstitial keratitis. The knees were chiefly affected and suppuration was rare. He held out as an hypothesis that in cases of secondary inflammation there was some product of metabolism formed in one tissue and that this gave rise to inflammation in a tissue of similar organisation. Gonorrhœal rheumatism was on this hypothesis more common in males because there was inflammation not only of the urethra but of the fibrous tissues of the penis and it was a poison formed there which gave rise to inflammation of fibrous tissues in the joints. He thought, also, that gonorrhœal rheumatism was predisposed to by a gouty inheritance. He would still class gonorrhœal arthritis as a form of rheumatism.

Mr. LUCAS, in reply, said that the gonococcus had been found in a sufficient number of cases to prove the nature of the joint affection. Injury was undoubtedly a predisposing factor, but he was unable to trace a rheumatic diathesis in any of his cases. He thought that gonorrhœal rheumatism was not so very rare in women, but was often overlooked. He insisted that it was extremely important to subdue the ophthalmia at the outset.

## MEDICAL SOCIETY OF LONDON.

*Appendicitis and Diffuse Peritonitis.—Ureteral Calculus.*

A MEETING of this society was held on Jan. 23rd, Mr. J. H. MORGAN, Vice-President, being in the chair.

Mr. CUTHBERT WALLACE read the notes of three cases of Appendicitis and Diffuse Peritonitis. In all three cases there was a local collection of pus which had spread and infected the general peritoneal cavity. In two instances the peritonitis was general and in the third it was confined to the viscera behind the great omentum. The treatment adopted was the same in all. The abdomen was opened and the appendix removed, and then the intestines were turned out on to the surface of the abdomen and cleansed with sterile water while the abdominal cavity was flushed out. Mr. Wallace submitted that this was the most rapid and effectual method of dealing with such cases and of effectually cleansing the abdominal cavity, and he pointed out that it was almost impossible to cleanse the peritoneum while the intestines were *in situ* because the irrigating fluid did not flow out in a steady stream but simply washed the infective material about from one part of the abdomen to another. The incision through the right rectus was best, as the same incision could be used to remove the appendix and wash out the abdomen. All three cases recovered without any complications and were discharged in little over a month.—Mr. CLUTTON congratulated Mr. Wallace on his successful series of cases which he doubted if any other surgeon had been fortunate enough to obtain. He remembered the time some years ago when extraventation was practised, but he did not recall any successful results. But the methods were different. Then the intestines were received in a warm towel, the abdominal cavity was filled not with non-irritating saline fluid but with some antiseptic, and this was removed by turning the patient almost on his face—a proceeding which gave rise to much shock. He asked for more particulars from Mr. Wallace as to the details of his operative procedures. Mr. Clutton observed that in Mr. Wallace's cases the bowels were relieved on the third day. He thought that this had much to do with the good result. There was no doubt that septic absorption took place from the internal surface of the bowel and that evacuation of the contents of the bowel was most desirable. Magnesium sulphate was often talked of but as a rule it was rejected by the stomach. It had been suggested that the salts should be injected into the upper part of the small intestine by means of a hypodermic syringe and if this proved to be feasible it would increase the chances of the patients.—Mr. STANLEY BOYD asked what length of incision Mr. Wallace employed for getting the intestines out. He himself had been deterred from trying extraventation because of the difficulty in returning the bowels and the danger of leakage if they were pricked. Probably incision and drainage would be the best way of dealing with distended gut now. He quite agreed as to the removal of the intestinal contents and a quickly acting purge which would act in a small dose when given hypodermically was much wanted. Absolute cleansing of the peritoneum was not possible and recovery would depend partly on the power of the patient to deal with what was left.—Mr. BRUCE CLARKE said that in a case where there was difficulty in returning the bowel he had incised it, fixing it to the abdominal wall, and closing the opening afterwards. If the patient lived recovery was rapid. He approved of the method of extraventation and of the position of the incision through the rectus, as there was less liability to subsequent hernia.—Mr. W. H. BATTLE said that the symptoms presented by these cases varied and mentioned a patient whom he had recently seen in whom the symptoms at first did not appear to indicate to those who saw him first that the condition was grave. On examination respiration was entirely costal, his pulse was weak, and his face was slightly bluish. An incision was made on the right side of the abdomen and a large quantity of stinking pus evacuated.—Mr. MORGAN agreed with what had been said as to the advantages of extraventation, although the return of the bowel presented great difficulties. Although the abdominal cavity could not be completely cleansed most of the septic material could be removed and in the case of perforated gastric ulcer if the extravasated matter was small in amount and removed early recovery often followed. He thought that the immobility of the abdominal wall was of as great significance as the condition of the pulse and the facial expression.—Mr. WALLACE, in reply, said that abdominal movements might be present when the abdomen was full of pus as in a case on which he operated for ruptured duodenal ulcer. All went well for four days and the movements of the abdomen during respiration were perfect. The patient suddenly collapsed and after death the abdomen was found to be full of pus. As to difficulty in returning the bowel, in his cases there was no distension and there was no difficulty, but in a more recent case he had to resort to puncture and incision. As to the details of procedure he commenced the abdominal incision level with the anterior spine and continued it up for about 6 in. The house surgeon held the intestines over to one side while the loin on the other was flushed and cleansed and they were then brought over for the other side to be

cleansed. The intestine was irrigated all the time with hot sterilised water, saline fluid not being available at the time. When recovery occurred it was very rapid, abdominal movements returning within twelve hours.

Mr. P. J. FREYER read notes of two cases of Operation for Impacted Stone in the Ureter. Case 1.—A patient, aged twenty-three years, had been suffering for nineteen months from renal colic and hæmaturia which was ultimately diagnosed to be due to stone in the kidney. There was a slightly moveable tumour in the region of the right kidney as large as two fists with tenderness on palpation. The kidney was exposed through an oblique lumbar incision 4½ in. long. No stone could be felt, so he opened the kidney through the convex border, passing his finger through into the pelvis when a rush of urine took place. Still no stone could be felt, but on passing a catheter down the ureter an obstruction was found 4 in. from the pelvis. He enlarged the incision 4 in. or 5 in. till he could grasp the stone, which he removed through an incision into the ureter. He did not suture the wound in the ureter, but contented himself with placing a large drainage-tube down to the opening along the back of the kidney, and he partially closed the wound of the kidneys by two stitches. Bloody urine was passed freely in the evening and by both loin and ureter for several days. The patient completely recovered and he left the home five weeks after the operation. He had since operated on this patient's mother, successfully removing several oxalate stones from the pelvis and calyces. Case 2.—A man, aged fifty-two years, had been a patient at St. Peter's Hospital for some thirteen years suffering from multiple stricture of the urethra and symptoms of renal calculus. Exploration of the left kidney in 1895 gave only temporary relief. When he saw the patient in 1897 he was very ill with severe pain in the left loin and hæmaturia. The urine was thick and offensive and deposited about half pus. On Sept. 1st, 1897, he explored the left kidney through an oblique lumbar incision but could find no kidney. No relief followed, so he performed internal urethrotomy on Nov. 18th, but though the operation afforded a free exit for the urine it did not much diminish his other symptoms and the pain in the right loin increased. He continued to suffer very severely and on Nov. 9th Mr. Freyer examined him with a cystoscope under an anæsthetic and detected a long, narrow, rough, pencil-shaped stone projecting into the bladder from the right ureter and this after a little trouble he removed with a lithotrite, and since that time the patient had continued to improve in health although there was still pus in the urine. He briefly alluded to five other instances of stone impacted or encysted in the ureter on which he had operated. In three the stone was impacted at the ureteral orifice projecting into the bladder and felt by the sound (one female and two males).—Mr. BRUCE CLARKE detailed a case which occurred in a woman who had symptoms related to the right kidney. On incising the pelvis through a lumbar incision and introducing the finger no stone could be felt, but a black bougie passed down the ureter met with a stone about 5 in. from the kidney. He incised the ureter and removed the stone. He did not stitch the ureter, but it perfectly recovered its function, as, later, on cystoscopic examination urine could be seen issuing from it. Probably some cases of supposed cystic calculus were due to a calculus impacted in the lower part of the ureter ulcerating through, so that a pouch was formed containing a stone.—Mr. MORGAN commented on the fact that if a calculus were not in the usual place near the kidney or at the lower end it was usually where Mr. Freyer and Mr. Bruce Clarke had found it and he asked whether it was caught where the ureter passed over the brim of the pelvis or the iliac artery.—Mr. FREYER said he thought that a stone might be arrested at any point. It was probably thought that it was especially at the ends because those points were more accessible and so calculi were more often detected there.

## LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

*Discussion on the Serum Treatment of Diphtheria.*

A MEETING of this society was held on Jan. 13th, the President, Mr. EDWIN LEE, being in the chair.

A discussion on the Serum Treatment of Diphtheria was opened by Dr. CHURTON, Dr. BARRS, and Dr. TREVELYAN.

Dr. CHURTON said that it was not always possible to obtain immediately bacteriological evidence as to the nature of a doubtful case and it was therefore necessary to clearly define the clinical evidence—symptoms, signs, and history—which gave the greatest measure of probability that in any given case the specific bacilli were present. He recited the following case as an illustration. A well-nourished boy, aged eight years, under treatment in the Leeds Infirmary for left hemiparesis with complete blindness, apparently due to limited tuberculous disease, was shown to the society on Dec. 2nd. He was rather quickly recovering sight, &c. Next morning, the 3rd, he had a slight headache. At 4 P.M. the fauces and tonsils were rather red; the tonsils were also, perhaps chronically, enlarged. The temperature was 103° F. and the pulse was 140 (previously it had been from 80 to 100). On the 4th the temperature was 101·4° and the respirations were 28. Visible parts of the tonsils were covered with a creamy or greyish-creamy exudation, not leathery or fawn-coloured, not patchy but uniform. At one point, where the left anterior velum rested upon the tonsil, the cream-white surface of the tonsil exactly resembled exudation from a crypt or follicle. There was no exudation on the velum. Detachment of a fragment of exudation did not cause bleeding. It was impossible to obtain a bacteriological verdict until next day. There was no albuminuria. The glands at the angles of the jaw were slightly enlarged. The onset though rapid had not been sudden, as it is said to be commonly in ordinary sore-throat. A case of diphtheria complicating enteric fever had been in the ward for a few days a month previously but no case had occurred in it since. 1000 units of Messrs. Parke, Davis, and Co.'s serum were injected and precipitated sulphur was applied to the tonsils by insufflation. On the 5th at 5 P.M. the tonsils were cleaner and showed white spots on a red ground. The white spots were creamy and raised above the red surface but not abruptly. On the 6th it was reported that diphtheria bacilli and staphylococci had been found in the exudation. (The bacilli were also found in a scraping from the tonsil on the 14th; on the 21st there was none.) The boy was apparently free from his new disease; recovery from his original disease was scarcely, if at all, retarded. So far there have been no sequelæ of any kind. The serum produced no urticaria, albuminuria, or anæmia.

Dr. BARRS said that his experience had led him to adopt antitoxic serum treatment in all cases which were clinically recognised as diphtheria. He had seen nothing but good result from its use and he had never seen any ill-effects following its application. The serum should be used in all cases without waiting for a bacteriological diagnosis and used in efficient doses. He thought that the difficulties in making a clinical diagnosis of diphtheria were not so great as had been stated. For practical purposes he held most strongly that all membranous inflammations of the throat should be regarded as diphtheria and promptly treated as such to avoid the chance of fatal respiratory or cardiac failure.

Dr. TREVELYAN first shortly referred to the subject of artificial immunity and its relation to the serum treatment. He then discussed the question of the strength of the serum and the method of expressing it in immunity units. The longer the interval between the time of the infection and the injection of the serum the greater the difficulty of cure and the larger number of units required. The cause of the failure of the serum treatment lay in (1) its too late administration; (2) insufficient dosage, including inefficiency of the serum; and (3) the presence of a mixed infection. In speaking of the severe accidents which had very rarely attended the injection of the serum Dr. Trevelyan did not think that every case should be forthwith injected, but that if the general symptoms were obvious or the local lesion severe or extending then no time should be lost. The proofs of the value of the serum treatment were furnished by (1) statistics and (2) the obviously favourable action upon the symptoms. The numbers which had been treated were sufficiently numerous to warrant the conclusion that the serum treatment was efficient. The disappearance of symptoms of even considerable laryngeal obstruction under the serum treatment was illustrated from a recent case; it constituted one of the most striking instances of the favourable action of the treatment upon the symptoms of the disease. On the other hand, it must not lead to an undue postponement of tracheotomy or intubation. Except in so-called septic diphtheria Dr. Trevelyan did not think that local treatment was

desirable as the disadvantages attending a thorough local treatment altogether outweighed the advantage to be obtained from it in the presence of an efficient general treatment.

After a few remarks by the PRESIDENT, Dr. SPOTTISWOODE CAMERON commenced the discussion by giving the statistics of the epidemic of diphtheria in Leeds and illustrated them by lantern slides.

Dr. MOUILLOT (Harrogate) doubted if the mortality of diphtheria was as great as generally supposed. Before bacteriological investigations were made severe cases were diagnosed as diphtheria and the mild ones were not recognised as mitigated examples of that disease. Hence an exaggerated mortality.

Mr. EXLEY had treated during 1898 47 cases of diphtheria with 16 deaths (37·04 per cent.). The cases under "ordinary" treatment were 32 with 15 deaths (46·8 per cent.) and the cases under "antitoxin" treatment 15 with only 1 death (6·6 per cent.). Two adults were treated and both recovered. Five cases over ten years of age were treated and all recovered. The death under antitoxin treatment was interesting from the fact that it was the first time that Mr. Exley had used the serum and the administration was delayed until the fifth day. 1500 units were then given and 1500 units twenty-four hours later as the case was severe (nasal). The child rapidly improved on the fourteenth day and sat up in bed for a little time; the patient then became faint and gradually got worse and died on the sixteenth day from the disease. No ill-effects were noted from the use of the serum.

Dr. ROBINSON (Low Moor) referred to a severe case in which the symptoms of laryngeal obstruction passed away under the serum treatment. The child, aged nine years, was injected with 3000 units within eighteen hours and made a rapid recovery. Dr. Robinson thought that a short delay was thus justifiable before proceeding to tracheotomy in such cases.

Mr. A. E. PEARSON, of the Leeds City Infectious Hospitals, dwelt upon the importance of a bacteriological examination being made in suspected cases before admission.

Dr. MANTLE (Halifax) reminded the meeting of the communication he made to the society in May, 1895, when he brought forward three successful cases. He was then a believer in the antitoxin treatment and after a more extended experience he was a greater advocate of it being adopted in all cases. He was, however, convinced that it was wrong to discard local treatment inasmuch as the serum was not a germicide but was merely antagonistic to the poisons manufactured by the bacilli in the throat.

Dr. BAMPTON thought that clinically all membranous sore-throats must be treated as diphtheria. But all diphtheritic sore-throats were not membranous.

Dr. EDDISON made some remarks chiefly on the question of local treatment.

Mr. EDWIN ROBERTS had treated 22 cases of diphtheria during the recent epidemic and 21 of these were injected. The one in which the serum treatment was not employed was moribund when first seen and died in a few hours. Of the remaining 21 2 died. The first of these was injected on the fourth day. He was doing well when a fatal abdominal complication supervened. In the second case, seen on the fifth day, the child was almost pulseless and died the same night in spite of the serum treatment. In those cases injected early and sufficiently the good results were so regularly and constantly observed that one was fully persuaded that the antitoxin treatment was absolutely specific. No other treatment, local or otherwise, was adopted in these cases beyond forced feeding and stimulants.

Dr. HELLIER said that he had frequently noticed in cases of diphtheria an early slowness and irregularity of the pulse which were useful in diagnosis. He thought it a mistake to say that whenever there was membranous exudation the case was diphtheritic.

Dr. CHADWICK stated that the present success of tracheotomy for "croup" in young children was quite astonishing as compared with former times, the only difference being the simultaneous use of antitoxin.

Mr. LITTLEWOOD said that before the days of serum treatment he had performed tracheotomy for diphtheria on 12 occasions. Of these only 2 recovered and 1 died subsequently from cardiac paralysis. Since this time he had operated on 3 most severe cases, all of which recovered under the combined treatment of the antitoxin and tracheotomy.

Dr. CHURTON, Dr. BARRS, and Dr. TREVELYAN replied.

Dr. TREVELYAN showed a series of Cultivation and Microscopical Preparations together with Lantern Slides and Diagrams of the Diphtheria Bacillus, and Mr. A. E. PEARSON Microscopical Specimens from cases of Diphtheria in the City Fever Hospitals.

## EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

*Exhibition of Cases and Specimens.—Disease of the Cerebellum.—Aphasia.*

THE fourth ordinary meeting of this society was held on Jan. 18th, Dr. P. A. YOUNG being in the chair.

Dr. GREIG showed a man who possessed a Symmetrical Congenital Perforation of each Parietal Bone. The case was reported by Dr. Greig in Vol. XXVI. of the *Journal of Anatomy and Physiology* and is remarkable on account of the rarity of the occurrence. The man had been a soldier for many years and had suffered no inconvenience from the defect. He was slightly under the usual height, somewhat microcephalic, and exhibited in a feeble manner the Mongolian type of countenance. Each perforation was 2½ by 3½ centimetres in diameter and occurred at the postero-superior angle of either parietal bone. They were separated by a bony ridge and the margins were not elevated above the general surface. When the areas were firmly pressed upon the patient suffered from giddiness and flashes of light appeared in both eyes. Professor Turner described a very similar case in the *Edinburgh Medical Journal* of 1865 and Broca recorded two cases; in one of the latter the openings were not so large as in the present case and the second occurred in a negro where the parietal foramina were double. Sir George Humphry described a skull which was in the Museum at Cambridge where these parietal openings were large enough to introduce the finger tips.

Mr. CAIRD and Mr. GUY showed the case of a man who had suffered from Untreated Syphilitic Disease about five years ago. His condition was miserable as both hard and soft palate were gone as well as the front part of the superior maxillary bone. The cartilage of the nose had been totally destroyed as well as a large part of the upper lip. There was one common naso-pharyngeal cavity. On introducing the finger it was found that the vomer, ethmoid, and turbinated bones were all absent, the finger reaching directly to the cribriform plate of the ethmoid above and to the sphenoidal cells behind. There was no vestige of bone on which to fit an obturator. Mr. Guy had devised a vulcanite obturator which attached to a lip (covered by a false moustache) and a nose were all kept in place by an empty pair of spectacles. The patient's speech which was quite indistinct before treatment is now improving.

Dr. HARVEY LITTLEJOHN showed two specimens of Hypertrophied Heart in which sudden death occurred. 1. The first was from a lad, aged twenty-one years, who was found dead in bed and had apparently been perfectly healthy previously. At the ages of seven and fourteen years he had suffered from attacks of rheumatic fever, but for seven years had been in perfect health, bicycling, &c., and being only short of breath after exertion. The heart weighed 28 oz. and the hypertrophy was apparently due to aortic and mitral valve disease. The auricles were also greatly enlarged. 2. The second specimen was from a man who had been in apparently perfect health when discharged from the Royal Infirmary of Edinburgh but who fell down dead suddenly the same day. The specimen was obtained from the body of an old soldier, aged thirty-five years. The heart was one of the heaviest recorded, 3 lb. (48 oz.).

Dr. LITTLEJOHN also showed a rare condition, Partial Rupture of the Heart. The specimen was obtained from the body of an old lady who on getting out of bed one morning felt very ill and had severe pain over the heart; she was put to bed, poulticed, and given peppermint water. She lingered all that day and was found lying dead on the floor next morning. On post-mortem examination a rupture of the internal surface of the left ventricle was found, not perforating the heart, but simply running across the chordæ tendineæ and musculi papillares for about 2 in. This rupture was not caused by the careless handling of a fatty heart, but was actually due to

spontaneous rupture, for fibrinous clot could be seen adherent to the ruptured ends of the chordæ.

Dr. LITTLEJOHN also exhibited a specimen showing a large Clot on the Surface of the Brain due to Laceration of the Middle Meningeal Artery. The colour and natural appearance were well shown by preservation in formalin.

Dr. ALEXANDER BRUCE read a paper on the Localisation and Symptoms of Disease of the Cerebellum considered in relation to its Anatomical Connexions. The object of the communication was to draw attention to the importance of the connexions of the cerebellum with reference to the clinical symptoms presented. The symptoms of cerebellar disease might present themselves under two classes—(1) those common to any intracranial lesion; and (2) those special and peculiar to the cerebellum, as, for example, disturbances of coördination and vertigo. According to Nocard these differences in the symptoms did not arise from any difference in the nature of the lesion but in the difference of its situation. Disturbances of the equilibrium were only present when the middle lobe of the cerebellum was affected and the object of the present paper was to show why these might occur. The cortex of the middle lobe of the cerebellum formed the central termination for at least six important tracts from the spinal cord. The two direct tracts which ended in the upper part of the middle lobe were the direct cerebellar and the tract of Gowers. From the posterior division of the cord tracts also passed up to the central lobe. The functions of these were doubtful but they did not seem to convey impressions of touch, temperature, or pain. Some were, however, connected with the conduction of muscular sense. None of these tracts passed directly to the lateral lobes. One tract passed from the nucleus of Deiters (where the fibres from the ampullæ of the semicircular canals terminated) to the roof nucleus. The relations which the nucleus of Deiters possessed were until recently very obscure. The nucleus itself was filled with large cells very similar to those found in the anterior horns of grey matter in the cord and evidently motor in function. From this nucleus fibres might pass downwards and cross over to the nucleus of the sixth nerve. Another bundle went across the middle line to the third nucleus, while another tract passed the olive to the antero-lateral columns of the cord. If this nucleus be divided an extensive degeneration of nerve fibres took place. It was a nucleus which had an important influence on the muscles of the eyeball. Fibres passed down to the anterior columns of the cord as far as the lower thoracic region. These gave off fibres to the anterior horns of grey matter. Another bundle of fibres in the antero-lateral region of the cord went as far down as the lumbar region and also had connexions with the anterior horns. Sagittal fibres passed from the nucleus of Deiters into the roof nucleus. In this way a sensory afferent chain was thus formed which must be intact so that equilibration might be perfect. The superior cerebellar peduncle which was important in regard to equilibration started from the nucleus close to the boundary between the middle and lateral lobes and went to the optic thalamus and so to the cortex. The lateral lobes got their fibres chiefly from the middle cerebellar peduncle. If the inferior peduncle be destroyed there was rolling to the side of section. The same happened if the superior peduncle be divided and pretty similar results were obtained if the middle peduncle be divided. If a longitudinal section be made exactly in the middle line little effect was produced. There was no tendency to fall to either side because the conditions were alike on either side. Section of one-half of the middle lobe had much the same effect as removal of one of the lateral lobes, the animal fell to the side of the lesion. Slight injuries to the lateral lobes showed only slight and transient symptoms. Tumours in the middle lobe tended to affect equilibrium because of the interference with the afferent and efferent tracts. If these growths be to one or other side of the middle line they acted more powerfully as disturbing agents on equilibration. In tumours affecting the lateral lobes a considerable area might be affected without interference with the restiform body, nucleus of Deiters, or nucleus dentatus. If, however, the tumour passed inwards it affected these structures and the symptoms produced were analogous to those seen in affections of the middle lobe. Within the cerebellum there were tracts which ran as definitely as the pyramidal tracts and when these were affected there were as definite symptoms produced.

Dr. SHENNAN and Mr. MILES related fully a unique case of Aphasia which occurred in a man aged twenty-two years. As a result of middle-ear disease an abscess formed in the temporo-sphenoidal lobe of the brain. It was treated by operation. There was paraphasia but no word-deafness. He used nouns very seldom, expressing the meaning intended by using the verb. He understood writing and could write to dictation. He read to himself and understood what he read; he could not name a watch but could tell the time on it. The lesion evidently affected the conducting fibres from the auditory centre to Broca's convolution. The patient ultimately died and at the post-mortem examination it was found that the whole of the left temporo-sphenoidal lobe was occupied by an abscess, there being also a secondary abscess reaching under the first temporal convolution. The symptoms produced were almost entirely due to the presence of the first abscess, the secondary one causing chiefly compression effects.—Dr. WILLIAM ELDER made some remarks in relation to this case.

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NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.—A meeting of this society was held on Jan. 12th, Dr. Limont, President, being in the chair.—The President showed a man who had developed Tar Acne as the result of having a tar lotion applied to his skin which was affected with seborrhœic dermatitis.—Dr. H. B. Angus brought forward a man from whom he had removed by free excision a Malignant Pustule situated below the left ear. This patient probably became infected while unloading foreign hides. The period of incubation was about four days. Recovery was uneventful, a simple, healthy, granulating ulcer now being present.—Dr. Hardcastle showed the specimen removed, also microscopic slides of the bacilli and spores taken from fluid in the vesicles.—Mr. Morison related a case which had been under his care three months previously. This patient became infected as the result of dressing the carcass of an affected animal. The pustule developed on the dorsum of the hand between the thumb and first finger. Treatment consisted in free excision. Three or four hours after during the absence of the nurse the patient tried to get out of bed and was found dead on her return. Mr. Morison thought that syncope was a common method of death in these cases.—Dr. James Drummond recounted a case which had come under his observation one year ago. The patient, a stableman who did not know how he had got the infection but suggested the foreign grain, developed a pustule on the dorsum of the hand of the size of a split walnut. He was seen four days after the onset of the attack. The fluid in the vesicles contained bacilli. Treatment consisted in the injection all round the pustule with carbolic acid. The whole mass sloughed away, leaving a healthy surface which healed in three months.—Dr. Beattie said that the period of incubation in Mr. Morison's case was four days and a striking peculiarity was that bacilli were found in the blood during life. If the knife were used in the treatment of these cases the resulting wound might be readily inoculated. He would suggest the actual cautery.—Dr. Fielden had come across 3 cases in his practice, all in butchers. These were all treated by the external application of liquor ferri perchloridi and the internal administration of 30 minims of the same. All recovered.—Mr. Rutherford Morison brought forward a patient who had noticed a mass in the abdomen for three years. Operation (gastro-enterostomy) had been performed six weeks previously with great benefit to the patient. Mr. Morison explained his method of operating. This consisted in severing the gut below the duodeno-jejunal flexure, attaching the distal part to the anterior surface of the stomach and the proximal end to the gut below the anastomosis. In this way there was less liability for bile and pancreatic juice to regurgitate.—Dr. Clay discussed the diagnosis of the case.—Mr. A. E. Morison said that he had done gastro-enterostomy in 5 cases. In 2 of these death had occurred as the result of regurgitation of the intestinal contents.—Dr. Martin congratulated Mr. Morison on the ingenuity of the technique of his operation and said that if it prevented intestinal regurgitation or rendered this more difficult it supplied a distinct want.—Mr. Rutherford Morison exhibited a boy who had had the Diaphysis of his Right Tibia removed for Infective Osteomyelitis. The bone was not reproduced. Mr. Morison therefore removed the fibula from a recently amputated leg, drilled holes into it, and placed it bodily in the position of the absent tibia. It had become completely vascularised with the exception of a small piece at the lower end over

which the skin had sloughed.—Dr. A. M. Martin brought forward a girl, a domestic servant, who had been operated on for perforation of a gastric ulcer some four hours after the perforation took place. The perforation was in the posterior wall. Recovery was uneventful.—Dr. Oliver exhibited: 1. A man who had been an in-patient three years ago for Aneurysm of the Ascending Portion of the Arch of the Aorta. The aneurysm had therefore been in existence three years. Signs of effusion had been present which on introduction of a needle were found to be purulent. There was now no evidence of pus. 2. A man with Aneurysm springing from the Descending Colon and Pointing Backwards to the Left of the Spine. This case had been treated by galvano-puncture with some diminution of size and pulsation.—Dr. Beattie discussed the cases.—Dr. Beattie brought forward a German who exhibited marked Analgesia. On becoming excited his back became markedly arched so that he rested on his heels and occiput. While before the meeting the patient had a typical attack.—Dr. Oliver alluded to a much greater frequency of these cases in foreigners than in Englishmen and mentioned a precisely similar case which had been under his care some ten years previously.

CLINICAL SOCIETY OF MANCHESTER.—A meeting of this society was held on Jan. 17th, Dr. A. Hill Griffith, President, being in the chair.—Mr. J. E. Platt drew attention to the frequency with which Fracture of the Shaft of the Ulna is associated with Dislocation of the Head of the Radius and stated that the true nature of the accident was very liable to be overlooked. He showed, by permission of Mr. Thomas Jones, a patient who had had almost complete ankylosis of the elbow-joint as a result of non-reduction of the displacement of the bones and who had been greatly improved by subsequent excision of the radial head. Mr. Platt had met with 6 or 7 examples of this injury; in all cases it appeared to have been due to direct violence; in all save one the ulna had been broken near the junction of the upper and middle thirds of the shaft. The radius had been dislocated outwards in one case, backwards in one, and forwards in the remaining cases. When seen soon after the occurrence of the accident reduction of the deformity had been easily effected by traction upon the forearm with pressure upon the head of the radius. In old-standing cases excision of the radial head had given excellent results. The advisability of examining for dislocation of the radius in all cases of fracture of the shaft of the ulna without fracture of the radius was insisted upon.—Mr. E. Stanmore Bishop read a paper on the Present Position of the Operation for the Removal of Uterine Fibroids which is published in the current issue of THE LANCET.—Dr. Fothergill made a communication on the Relief of Suffering in Obstetric Practice. As labour was a natural and healthy process, but one attended by a great deal of discomfort, he held that the first duty of the obstetrician was to relieve suffering. The comfort of the parturient woman should be secured, firstly, by careful attention to a number of details; and secondly, by the use of chloroform during the second stage of labour. The minor methods of relieving suffering were illustrated by reference to the great utility of the hot bath and it was stated that the bath-room is the most comfortable place in which to pass a considerable portion of the first stage. The use of de Ribes's bag or of manual dilatation was advocated for shortening the suffering of dry labour, while a short administration of chloroform was recommended in colicky uterine action and in spasmodic rigidity of the cervix. Cocaine and quinine were also mentioned as useful adjuvants during the first stage. When dilatation was complete and the second stage was fairly begun a few whiffs of chloroform might be given with every pain until the end of labour, when for a few minutes deeper anæsthesia should be produced. Bleeding was not increased and the child was not injured by this use of chloroform, and, if unduly prolonged, labour could always be ended by a judicious use of the forceps. In cases where operative interference was necessary chloroform should always be employed. It was a matter for deep regret that in that district forceps extractions, turning, craniotomy, and removal of adherent placentæ were frequently done without the aid of any anæsthetic. In repairing perineal tears some suffering could be spared by omitting to suture the skin and vaginal mucosa, uniting merely the torn muscle and connective tissue. The use of hypnotism in obstetric practice was also referred to and the interesting results of experiments by an American observer were described. In 35 cases out of 46 suffering was greatly relieved.

CHELSEA CLINICAL SOCIETY.—A meeting of this society was held on Jan. 17th, Mr. J. Foster Palmer, President, being in the chair.—Dr. C. C. Gibbes read a paper on the Pathology of Mitral Stenosis, bringing forward a new theory as to the origin of the presystolic bruit. He described a case of mitral stenosis in which ventricular contractions could be felt during the diastolic period. A similar case was recorded by Dr. Barclay in 1872 who considered it due to ventricular contraction occurring before the apex beat was felt. Dr. Gibbes ascribed it to right ventricular contraction taking place while the left ventricle was in a state of diastole; he stated that it was quite different to the undulations or the diffused impulse felt in a dilated heart, with some coexistent hypertrophy; the contractions were wave-like in character, spread from base to apex, and could be very plainly felt; they occupied at least half the entire diastolic period, the apex beat being synchronous with the arrival of the wave of contraction at the apex. In consequence of the ventricles being non-synchronous in action the muscle vibrations caused by the systole of the right ventricle were audible during the diastolic period. His opinion was that the so-called presystolic bruit was composed of three parts—viz., an auricular systolic bruit, right ventricular muscle vibration, and a slapping first sound—the muscle vibrations being the cause of the peculiar and intimate relations between the bruit and that sound and also prevented that lack of continuity being heard between the two murmurs in double mitral disease which are audible in double aortic.—Dr. Barry Blacker said that he had examined a case of mitral stenosis kindly sent him by Dr. Gibbes and had found with the x rays that the pleximetric percussion area as drawn by Dr. Gibbes coincided with the shadow thrown on the screen. He also retained the impression that in the case mentioned the contraction wave started from the region of the right ventricle. A further collection of cases would have to be examined before a definite opinion could be expressed.—The President, Dr. Ewart, and Mr. A. F. Penny also spoke and Dr. Gibbes replied.—Dr. Blumfeld read a paper on the Administration of Ether to Infants and Young Children. His object was to support by argument and recorded facts a principle too little recognised by the general practitioner—viz., that ether is a good anæsthetic for infants and children and attended with far less risk than chloroform. He fully admitted the use of chloroform in the hands of those constantly engaged in anæsthetics, but the man who only now and then had to anæsthetise an infant or young child would do well, he thought, to replace chloroform and a drop-bottle by a small cone and pure ether. It was his own practice to precede the ether by nitrous oxide gas and this method was very satisfactory even in the case of young infants. If cases were properly selected and sufficient air was admitted during administration lung trouble did not follow nor even had he ever seen serious after-sickness. With infants so little ether and so simple an apparatus sufficed that arguments for chloroform based on its convenience fell to the ground. He did not approve of keeping a small child under ether for more than half an hour. Speaking generally, after this chloroform should be used.—A discussion followed in which Dr. Gibbes, Dr. C. J. Harrison, Dr. Ewart, Dr. C. A. Morris, Mr. Penny, and Dr. Barry Blacker took part.—Dr. Blumfeld replied.

ROENTGEN SOCIETY.—A general meeting of this society was held on Jan. 10th at 11, Chandos-street, Cavendish-square, W., when the President (Mr. C. W. Mansell-Moullin) was in the chair. A paper was read by Major Battersby, R.A.M.C., on the Present Position of the Roentgen Rays in Military Surgery. After a review of what had been done in the more general fields he discussed the new method as regards army work under the headings of "Fractures," "Dislocations," and "Foreign bodies." Surgeon-Major Beevor had used the new method successfully on the Indian frontier, where he was exposed at times to severe frost, while he himself had carried it out when in charge of the x ray department in the recent Egyptian Expedition in a temperature varying from 100° to 120° F. in the shade. Turning to the special difficulties encountered he had one 10 in. coil made in two parts for transport by mule or camel. The apparatus was encased in strong boxes covered with felt and kept wet so as to keep the contents cool by evaporation. Electricity was generated by a dynamo driven

by a pulley attached to a tandem bicycle. He thought the ideal apparatus for the future would be of the Wimshurst type—to drive the tube without coil or batteries. The intense glare rendered the use of the screen unsatisfactory; his screens were covered with celluloid. He used glass sensitive plates exclusively for photographic purposes. On account of the great heat and sandstorms developing was attended with great difficulties, but the results, although photographically imperfect, yielded all the information which was needed by the surgeon. After the battle of Omdurman 121 wounded were brought to Abadieh. Of that number 21 cases could not be diagnosed accurately by ordinary means; in 20 of these the rays showed the presence or absence of a bullet, the remaining patient being too ill to be examined. The method proved valuable in spent bullet wounds, as the possible presence of a foreign body could be ascertained without probing. Accurate localisation was effected in all instances where there was any doubt. His experience showed that probing for an uncertain bullet with its subsequent pain was a thing of the past, that the presence of a bullet could be localised with mathematical certainty in the deeper parts of the body on field service, and that great help could be gained in the case of uncertain fractures.—The President congratulated Major Battersby on the excellent results obtained under extreme difficulties.—Surgeon-Major Beevor narrated some of his experiences on the Indian frontier in which he had applied the Roentgen methods to many hundreds of cases. He found the rays useful in many conditions other than the presence of a bullet and instanced necrosis and undetected partial fractures. In one case a bullet penetrated the liver and lodged in the opposite side of the body. He had found both celluloid films and sensitised paper unsuited for military work.—Professor Silvanus Thompson said that military surgeons should first state the exact shape and size of Wimshurst machine they wanted so that electricians might meet their requirements. He suggested the use of celluloid as an insulating agent and of mica plates for sensitive films.—Mr. W. Webster, Mr. Wilson Noble, Mr. E. Payne, Mr. L. Miller, Mr. J. H. Gardiner, and Major Kilkelly, R.A.M.C., continued the discussion, chiefly from the photographic and electrical standpoints.

MADRAS MEDICAL ASSOCIATION.—A general meeting of this association was held on Dec. 13th, 1898, in the Madras Medical College premises, Dr. Grant being in the chair.—Mr. J. V. Ramasawmynaidu, L.M.S., read a paper on Plague and Vaccination. He first referred to a telegram from the Minister of Turkey to the Secretary of State for India setting forth that the Turks believe that vaccination protects against plague, and then to the opinions of Mr. Haffkine of Bombay and Lieutenant-Colonel Lawrie, I.M.S., of Hyderabad, the former (from statistics taken from Bombay Jail) asserting that plague was not influenced by vaccination one way or the other, the latter asserting that double vaccination is likely to protect against plague. He said that the belief of the Turks in the efficacy of vaccination against plague must have had some justification for its origin. He quoted some old physicians who held the same opinion. He showed that theoretically it was likely that double vaccination may protect against plague on the same principle on which Widal's test for typhoid fever is based. The principle is that serum from man or animal suffering from an active infective fever is detrimental to certain bacteria, that as the result of bacteriological research Mr. A. G. R. Foulerton had shown that glander bacillus was thus influenced not only by serum from a patient suffering from glanders but also by serum derived from a horse immunised against diphtheria. It was not going too far to expect that a subject well protected against small-pox may be immune to plague (by the injurious effect which the serum of the former would have over the bacilli of the latter). He pointed out that the immunity against plague may have been due to the vaccine lymph used in Turkey having become contaminated by plague bacilli.

BOURNEMOUTH MEDICAL SOCIETY.—The ordinary meeting of this society was held on Jan. 18th, the President, Mr. T. F. Gardner, being in the chair.—Dr. Ross read notes of a case of Tuberculous Salpingitis for which laparotomy was performed.—Dr. Snow read notes of a case of Basal Phthisical Cavity treated surgically.—The President initiated a debate on the subject, Should the Bournemouth Medical Society take any active part in the campaign against Tuberculosis, and, if so, in what way, will it be best to move in the matter? He said he thought the local medical society should take an active interest in the matter and coöperate with the National Association for the Prevention of Consumption, &c. He did not think the matter should be left solely to private enterprise to establish sanatoria for the so-called open-air treatment of tuberculosis.—The President and Dr. Arthur Ransome having given some particulars of the National Association for the Prevention of Consumption it was unanimously resolved:—

That the Bournemouth Medical Society approve the necessity of forming a local branch of the National Association for the Prevention of Consumption and other forms of Tuberculosis and that seven members be appointed to act with an equal number of the Town Council, thus forming a provisional committee to further consider the matter.

At a meeting of the Town Council held on Jan. 19th they appointed the following seven members—viz., the Mayor, Alderman Hirons, Alderman Hosker, Councillor Roker, Councillor Jolliffe, Councillor Mate, and Councillor Kinsey-Morgan—to serve on the provisional committee proposed by the Bournemouth Medical Society to consider the desirability of forming a local branch of the National Association for the Prevention of Consumption and other forms of Tuberculosis.

ÆSCULAPIAN SOCIETY OF LONDON.—A meeting of this society was held on Jan. 20th, the Vice-President, Dr. R. Ostlere, being in the chair.—Mr. W. Campbell M'Donnell showed a case of Primary Optic Atrophy in a man, aged twenty-five years, without any nervous symptoms or previous causal taint.—Mr. Macdonald Brown showed a case of General Discrete Molluscum Fibrosum in a man, aged fifty-four years, who had been so affected for thirty-four years.—Dr. C. G. Mack read notes of a case of Large White Kidney in a woman, aged forty-nine years, whose symptoms were occipital headache and vomiting primarily. Fifteen days later death succeeded coma. The brain and membranes were found to be normal and the kidneys were large with adherent capsules and pale.—For the President was shown a case of Psoriasis of all the Nails of two years' standing in a man, aged sixty-one years.—Mr. W. Campbell M'Donnell read notes of a case of Parotitis, Tonsillitis, and Diphtheria in a girl, aged eight years, who had ailed several days and complained then of sore-throat and languor. On the tonsils were small white patches, the ordinary appearance of follicular tonsillitis. The temperature was 102° F. in the morning. A few days later both the submaxillary salivary glands were inflamed. In two more days the teeth could be scarcely parted and the left parotid salivary gland was inflamed. She progressed favourably until on the eleventh day of attendance fluid taken returned viâ the nose. Next day she could open the mouth; it was then found that there were two diphtheric patches at the base of the uvula and the palatal palsy had increased. Antitoxin was then injected and also on the next day but she died during an attack of dyspnœa.

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HEALTH OF CARDIFF.—At the meeting of the Cardiff Health Committee held on Jan. 10th the medical officer of health, Dr. Walford, reported that 5520 births had been registered during 1898, giving a rate of 31 per 1000. The deaths numbered 2627, equal to a rate of 14·8 per 1000. This is the lowest death-rate since 1845 when returns were first taken. The rate of mortality from zymotic diseases was 2·52 per 1000.

A HOME FOR INEBRIATES.—At the meeting of the Gloucestershire County Council held on Jan. 9th it was reported that the committee of the Royal Victoria Home, Horfield, are erecting a public institution under the provisions of the Inebriates Act at Westbury-on-Trym and that they had applied to the council for a contribution. It was stated that the building will accommodate 880 patients and that it stands on 80 acres of land, the cost of the undertaking being estimated at £20,000. After some discussion the council resolved to contribute £1000 towards the institution conditionally that the county should be entitled to 7 beds for twenty-five years at a cost of 6*d*. each per day. The chairman (Sir J. E. Dorington, M.P.) added that the committee of the Royal Victoria Home were in negotiation with other counties and probably it would become the reformatory for the southern part of England.

# Reviews and Notices of Books.

*Twentieth Century Practice of Medicine.* Edited by THOMAS L. STEDMAN, M.D. New York. Vol. XV.: Infectious Diseases. London: Sampson Low, Marston and Co. 1898. Pp. 658.

THE general character of this valuable series of volumes needs no further comment in our columns, reviews of the preceding numbers having already appeared, so that we can at once turn to the consideration of the various contributions in the one now under consideration.

The first is on Influenza, by Dr. Ditmar Finkler. We have already referred to it in a leading article in our issue of Jan. 14th, p. 103, and we there designated it as one of the best monographs of the subject which we had met with. A full and most instructive *résumé* of the epidemiology of the disease is given, containing brief accounts of all the epidemics of influenza of which medical history affords evidence. The first records referring to pestilential diseases which are regarded by historians as descriptive of influenza are met with in Livy and refer to a pestilence in the year 412 B.C. According to August Hirsch the first influenza epidemic occurred in 1173 and he places it in his work as the first out of eighty. The pandemic of 1889–90, however, forms the starting-point of the modern history of the disease, and a full account of it is given. The various theories of the etiology are carefully analysed, but the view is maintained that it can only be spread by human intercourse and that atmospheric and other conditions play only inferior parts. Dr. Finkler agrees with Dr. Leichtenstern that "occupation and social position only in so far exert an influence on the frequency of the disease as certain occupations and positions in life lead to more or less contact with travellers." The micro-organism discovered by Dr. Pfeiffer in the year 1892 is considered by Dr. Finkler to be the pathogenic organism of the disease, and an exhaustive account is given of the characteristics, mode of culture, &c., of the bacillus. Dr. Pfeiffer's conclusions are also adopted, as follows: (1) any development of the influenza bacillus outside the human body, in the ground or in water, is impossible; (2) the spread of influenza by dried and powdered sputum can occur only to a very limited extent; and (3) the contagion, as a rule, is conveyed by the recent still moist secretion from the nasal and bronchial mucous membrane of influenza patients." The bacteriological examination of the sputum is laid considerable stress upon as the author believes that the bacillus can be demonstrated without difficulty, and he insists that in doubtful cases a positive diagnosis should not be made unless the organism has been found. Under the head of Pathology especial reference is made to the changes found in the respiratory tract.

The discussion of the Symptomatology of Influenza occupies 130 pages and forms a most exhaustive dissertation on that subject. We were greatly struck with the completeness with which the author has dealt with the chief types of the disease which present themselves and the many complications and sequelæ which unfortunately for the human race may ensue on an apparently slight attack.

The second article in this volume is one on Typhus Fever by Dr. Eduardo Liceága, President of the Superior Board of Health of Mexico. After detailing the histories of the various epidemics which have been recorded he dwells at some length on the etiology of the disease, laying especial stress on the well-known fact that those in closest attendance on the patients, such as the medical men and nurses, are the most liable to be attacked, and some startling statistics are given in support of this statement; at the same time, it is pointed out, the danger can be greatly lessened by rigid hygienic and antiseptic precautions. The author also reviews the evidence which has been advanced in favour of, and against, the doctrine of the autochthonous origin of this disease but is unable to arrive at any definite conclusion. He says: "My own opinion is that we have no right to sacrifice observed and attested facts to the lack of a satisfactory explanation of their causes and that we ought to cherish the hope that our science as it progresses will give us the key to discover the primary cause of typhus fever and we must content ourselves in the meanwhile with noting the facts and studying the secondary causes."

The descriptions of the symptoms of typhus fever are well and clearly defined and the section on diagnosis could only have been written by one who had had an extensive practical knowledge of the disease. An account of the experiments which have been tried to obtain an antitoxin is given but up to the time of writing no satisfactory results had been obtained.

The third contribution is on Plague, by Dr. Kitasato and Dr. Nakagawa. As would be expected, the section on the bacteriology of the disease forms most interesting reading. After detailing his own experiments Dr. Kitasato refers to those of Professor Yersin and says: "It has been quite generally assumed that the bacillus above described [the one discovered by the author] is identical with that of Yersin, but this assumption is incorrect"; and a summary is then given of their differences, and the writer then concludes: "Further bacteriological investigations of the plague are desirable and it is necessary that the scientific world should come to some definite conclusion as to the etiological bacilli before orrhotherapy and preventive inoculation can be instituted on a truly rational basis." The description of the disease does not follow the clinical arrangement usually adopted. Three types are taken: (1) glandular or bubonic plague; (2) pestis siderans or plague septicæmia; and (3) plague pneumonia. We do not consider this classification as comprehensive as the one adopted by the Bombay Plague Committee. This article has scarcely been brought up to date, only a very few lines being devoted to Professor Haffkine's investigations whilst Dr. Hankin's name does not appear.

The subject of Glanders is considered by Dr. Frank S. Billings. His definition is cumbersome and might almost be termed "ultra-scientific": "Glanders is an endogenous, obligatory-parasitic, invasio-infectious disease, due to the pathogenic action of a specific bacillus within the body of a suitable host which finds its historico-primary origin and its present genesis invariably among the solipeds, principally the horse, from which it is extended to other animals and to man, directly or indirectly, but not to cattle or swine." Medical terms are sufficiently numerous and expressive not to need others to be coined on the slightest provocation; and why (as is done in other parts of the contribution) are such Latin phrases employed as "causa interna," "causa externa" instead of the corresponding English phrases? Apart from this unnecessary use of Latin terms Dr. Billings has given us a very good account of the subject on which he writes, the section on Pathological Anatomy being especially interesting.

The same author contributes a paper on Anthrax which he describes as "an acute, exogenous, facultative, parasitic, infectious disease which is never general in its extension but invariably finds its locus of primary origin in telluric and caloric conditions of certain localities which supply the pathological necessities of its specific cause—bacillus anthracis." In describing the pathogenic organism the opportunity is taken of a disquisition on micro-organisms in general and very instructive reading it is. Anthrax being one of the bacilli the mode of growth, action, &c., of which is thoroughly understood such a digression is not out of place.

Dr. Billings's method of writing is peculiar, quotations from Scripture and Latin phrases being freely mixed with rather flowery English, but the knowledge that can be obtained by perusing the pages of his writings is none the less considerable.

A short article on Foot-and-Mouth Disease appears by Dr. Ismar Boas of Berlin.

Dr. Ponfick writes on Actinomycosis. Considering that Dr. Ponfick was one of the earliest observers of this complaint we are rather disappointed with his present contribution. It is very brief and the most modern literature does not seem to have been consulted. We notice especially that there is no reference to the work which has been done on the subject by English observers.

Dr. Keirle has evidently taken a good deal of trouble in putting together his paper on Rabies. The results of numerous experiments on animals are detailed and throw much light on the etiology of the disease, and also an account is given of the cases of eight boys who were bitten by a large dog in Baltimore in 1896; four of them died. The Pasteur method of treatment was adopted, but it was shown that the virus was from the dog and not from the treatment. We consider Dr. Keirle's contribution one of the best in this volume.

The last paper is on Pyæmia and Septicæmia and is written by Dr. J. M. Garton and Dr. J. M. Garton, jun. The sections on Prophylaxis and Treatment are particularly worthy of notice.

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*Vaccination: its Natural History and Pathology.* By S. MONCKTON COPEMAN, M.A., M.D. Cantab., M.R.C.P. Lond. London: Macmillan and Co. 1899. Price 6*s.* net.

THIS volume, which consists of the Milroy Lectures delivered before the Royal College of Physicians in 1898, is published in the same convenient form as were Sir Richard Thorne's Milroy Lectures for 1891 on Diphtheria. Although we reproduced Dr. Copeman's lectures in full in THE LANCET for May 7th, 14th, and 21st, 1898, we may, in view of the fact that an increasing amount of interest is now being manifested in the natural history of vaccinia and variola, indicate for the benefit of our readers the contents of the present volume.

The introduction, which covers some forty pages, furnishes a somewhat impressionist but very readable sketch of the history of variola, of the introduction and practice of inoculation, and of Jenner's early work as regards cow-pox and horse-pox. Following this comes a chapter dealing with the relationship of variola and vaccinia, in which the author views the identity of small-pox and vaccinia as a subject still awaiting a definite solution. He prefers to speak of vaccinia as "one with small-pox," regarding it as a matter of relative indifference whether small-pox in its passage through the calf assumes as it were a new specificity, or becomes merely a modification of itself. In this chapter a very concise summary is given of the work done in the variolation of bovine animals. The history of the various lymph stocks, occupying as it does but six pages, is not dealt with quite so fully as, having regard to the controversies which have raged around this subject, we could have wished; but clearly Dr. Copeman's space has been limited and he has managed in it to convey a capital idea of very much of the subject of which he treats. The chapter relating to the bacteriology of vaccine lymph furnishes an historical account of the gradual progress which has been made towards the light in this direction, and the records of the author's experiments with regard to the susceptibility of monkeys to both vaccinia and variola which are set forth in the next chapter are highly interesting. As he remarks, the fact that these animals evince a marked receptivity to both vaccinia and variola goes far to dispose of the objection raised by Dr. Collins and Mr. Picton that the "variolous test" can no longer be applied to test the protective power of vaccine lymph. Of glycerinated calf lymph we have heard much of late and we may expect also to hear something of it in the future. Those, therefore, who wish to understand exactly what it is which is claimed for this lymph will do well to read Chapter IX. of Dr. Copeman's lectures. Certainly much of the correspondence which has recently taken place upon this subject has rendered it apparent that Dr. Copeman's claims in this direction have not been generally comprehended. Glycerine has doubtless been at times added to lymph as a *diluent* for very many years, but it was Dr. Copeman who undoubtedly ascertained by virtue of his experiments the germicidal properties of glycerine when added in certain definite proportions to vaccine lymph. It is the application of this discovery which it is to be hoped will by its direct influence tend to diminish the allegations brought by ignorant persons against vaccination, and which will indirectly, by doing away with the necessity for puncturing the vaccine vesicles, reduce somewhat the after-complications which are, unfortunately, apt to occur from time to time. In connexion with this subject of glycerinated lymph several illustrations are furnished in the volume before us, showing by means of agar plates the gradual diminution of colonies in lymph treated with pure glycerine. With regard to the duration of activity of glycerinated calf lymph the author states that this is probably governed by several circumstances, and notably the condition of the calf itself. As to the question of potency, however, but little concern, according to Dr. Copeman, need be felt, and he tells us that from an average calf lymph can be furnished which, treated with glycerine, will suffice to vaccinate at least 5000 persons. This lymph will, we are glad to hear, retain its full activity for eight months. In an appendix to Dr. Copeman's instructive lectures is the very interesting report submitted by Sir Richard Thorne and himself to the Local Government Board on their joint inspection of the vaccination arrangements adopted in certain European countries.

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*The Surgical Anatomy of the Lymphatic Glands.* By CECIL H. LEAF, M.A., M.B. Cantab., F.R.C.S. Eng., Demonstrator of Anatomy at the London Hospital. London: Archibald Constable and Co. 1898. 8vo. Pp. 72. Price 10*s.* 6*d.* net.

THE average student when dissecting ignores utterly all lymphatic glands and lymphatics; he looks upon them only as so much material which has to be cleared away in order to expose the structures which he considers of more importance. The examining bodies also have favoured this idea by refraining from asking questions on the positions of lymphatic glands and vessels; but when the student commences the study of medicine and surgery he finds that the lymphatic system has an importance with which he had never previously associated it. The aim of this book is to give by means of a series of well-executed diagrams the positions of the chief groups of lymphatic glands. For the last three years Mr. Leaf has been making a large number of researches as to the situation of these glands and he has received much assistance in these investigations from the use of formalin. A large quantity of a dilute solution of this liquid was injected into the internal jugular vein and common carotid artery of a subject for one month and when the body was dissected later it was found that the glands were well hardened and that the lymphatic vessels could be seen as semi-transparent whitish cords which were so tough that when the glands were pulled from their bed the vessels were partly drawn out also. The author has not attempted, except incidentally, to point out the areas which correspond to each group of

glands, but we echo his hope that he will work out these points later.

With a few exceptions all the diagrams are original. We have already mentioned that they are well executed, but that is a feeble expression of the excellence with which these diagrams have been reproduced; nearly all the plates are coloured and they number eighteen. They are very good examples of chromo-lithography.

In a few cases Mr. Leaf has thought it advisable to rename certain groups of glands. It is, as a rule, a pity to introduce fresh names for it tends to confusion, but it is here probably justifiable.

It would serve no purpose to describe more fully the contents of this work, but there is one point which deserves particular notice. In some of the lower vertebrates several communications are known to exist between the lymphatics and the veins, but in man at only two points have lymphatics been found to pour their contents into the venous system. Mr. Leaf has discovered that in the inguinal region lymphatic vessels exist which divide—one branch going to a lymphatic gland and the other joining a vein. These observations are of great interest and the point deserves re-examination in order that they may be confirmed, but there is no *a priori* impossibility in the existence of such a communication. The only real fault we can find in the book is that it possesses no index.

## LIBRARY TABLE.

*Herbert Fry's Royal Guide to the London Charities for 1899.* Edited by JOHN LANE. London: Chatto and Windus. Price 1*s.* 6*d.*—The large amount of benevolent work operating in the great city of London is usefully chronicled in a systematic manner by Mr. Lane. So far as we have been able to verify the references they are both accurate and up to date; but the compiler, we think, errs on the side of including rather more institutions under the head of "charities" than is quite consistent with the true interpretation of even this much-abused word. For instance, we feel at a loss to quite comprehend in what way the London Anti-Vivisection Society, the National Anti-Vivisection Society, and certain religious or polemical institutions can legitimately be classed as "charities"; and the editor apparently shares our scepticism, seeing that the column opposite these societies, headed "Number of persons benefited last year," is left blank. It is worthy of note that the contributions to the various charitable funds promoted by the Lord Mayor at the Mansion House last year amounted to the large total of £700,000.

Messrs. John Wright and Co., Bristol, send us three little books in white paper covers lettered in gold, entitled, *Golden Rules of Surgical Practice*, *Golden Rules of Gynæcology*, and *Golden Rules of Obstetric Practice*. For works which if they are to be of any use should be constantly consulted we think the "get up" is a mistake, for it is modelled on the fashionable religious little books which were popular a few years ago under some such title as "Gold Dust." They are written respectively by Mr. Hurry Fenwick, Dr. S. J. Aarons, and Dr. W. E. Fothergill, and contain aphorisms and maxims of the greatest possible use not only to students and house surgeons but to practitioners of an older growth. They are the kind of points about which everyone when reminded of them says, "but I knew that," and they are also just those matters which are frequently forgotten. The price is 1*s.* each.

## JOURNALS.

*The Journal of Experimental Medicine.* Edited by W. H. WELCH, M.D. Vol. III., No. 6. New York: D. Appleton and Co. November, 1898.—The first feature that strikes us in the November number of the *Journal of Experimental Medicine* is the extraordinary number and beauty of the photographs and coloured illustrations with which some of the articles are illustrated. We seldom see in any publication such a number of expensive illustrations brought together. Eight of the plates, containing 34 beautiful drawings, are coloured, the remainder, with the exception of one coloured drawing, are exquisitely reproduced photo-micrographs. If we may make one criticism it is that in one or two instances the articles are over-illustrated and that a smaller number of drawings would have been sufficient to demonstrate the various conditions dealt with in the text. The result of all this is that occasionally the article appears to assume an importance somewhat out of proportion to its real value. One of the most important of the articles is that dealing with a Form of Degeneration of Striated Muscle met with in the Uvula, by A. G. Hoen, a paper of great interest from the fact that so little has hitherto been done on this subject. The author finds that in the relaxed uvula of inveterate smokers and those suffering from chronic pharyngitis there are degenerated muscular fibres in which proliferation of "interstitial" nuclei, granular disintegration of some of the individual fibrillæ, pigmentation of the nuclei of the muscles, and the formation of swollen and œdematous-looking patches occur. Dr. Ludwig Hektoern returns to the question of multi-nucleated giant cells and gives a record of his studies on these structures in coagulated blood-serum as it is being absorbed in the anterior chamber of the rabbit's eye. He still maintains that these giant cells may subdivide into uninuclear small cells and holds that they bear out his contention "that the giant cells in healing non-degenerated tubercular tissue may separate into small living cells and that the giant cells of tuberculosis are not necrobiotic elements from the very moment and from the very mode of their formation, as has been the general teaching, especially in Germany." Dr. W. L. Worcester contributes a paper on Regeneration of Nerve Fibres in the Central Nervous System; and Dr. F. B. Mallory gives a most careful Histological Study of Typhoid Fever. As a result of his investigations Dr. Mallory comes to the following conclusions: that the typhoid bacillus produces a mild diffusible toxin, partly within the intestinal tract and partly within the blood and organs of the body; that it produces proliferation of endothelial cells which acquire what he calls "malignant properties"; that the cells have eccentric nuclei and that they are markedly phagocytic; that they occur where the circulation is slowest, but that they may be found in every part of the lymphatic system of the body which the toxin may reach; that these cells pass through the liver and lungs and get into the general circulation, some also coming from the abdominal lymphatics through the thoracic duct; and they may give rise to vascular emboli. Dr. Mallory maintains that histologically the typhoid process is proliferative and stands in close relationship to tuberculosis; the lesions, however, are diffuse and bear no intimate relation to the typhoid bacillus, whilst the tuberculous process is focal and stands in closest relation to the tubercle bacillus. The other papers include Experimental Fat Necrosis: the Action of Pancreatic Tissue upon Subcutaneous Adipose Tissue, by Herbert U. Williams; a contribution to the Study of the Pathogenesis of the Bacillus Pyocyaneus, with special reference to its Relation to an Epidemic of Dysentery, by August Jerome Lartigan, M.D.; the Leucocytosis of Labour and the Puerperium, by Cleon M. Hibbard, M.D., and Franklin W. White, M.D. of Boston; one of the Conditions under which Discontinuous Sterilisation may be Ineffective (i.e., when shallow layers of fluid are freely exposed to the air; under these conditions anaerobic spores do not develop and consequently are never killed), by Theobald Smith, M.D.; notes upon an Epidemic of Fowl Cholera and upon the Comparative

Production of Acid by Allied Bacteria, by Charles H. Higgins, B.S., D.V.S.; and Diffuse Sarcoma of the Cerebral and Spinal Pia Mater, by George H. Weaver, M.D.

*The Journal of State Medicine.* Vol. VII. No. 1. London: Baillière, Tindall, and Cox. Price 2s.—The January number of this journal is largely devoted to the subject of Tuberculosis, containing as it does Sir Richard Thorne's second Harben Lecture which deals mainly with the influence of milk in the spread of this disease, and Mr. Christopher Middleton's paper on Compensation for Tuberculosis which was read at the veterinary conference of the Dublin Congress of the Royal Institute of Public Health. There is, too, a paper by Mr. Thomas McGuinness, M.R.C.V.S., on the Housing of Cattle in its Bearing on the Elimination of Tuberculosis, and one on the Milk of Tuberculous Animals by Mr. F. C. Mason, M.R.C.V.S. As a fitting accompaniment to these papers this volume contains a good portrait of Mr. Chaplin, the President of the Local Government Board, who may soon have to deal in a legislative sense with this important subject.

*West London Medical Journal.*—One of the original communications in the January number is a paper by Dr. F. J. McCann on Difficulties in the Diagnosis of Early Tubal Pregnancy. He describes two successful operations for this condition and to show how many signs and symptoms of tubal pregnancy may be found apart from it he gives some details of a case of dermoid cyst of the ovary. Dr. A. W. Addinsell describes a case of Ovariotomy followed by Parotitis; some time before the operation the patient suffered severely from a strong solution of perchloride of mercury having been given as an enema in mistake for soap and water.

*Birmingham Medical Review.*—Dr. C. E. Purslow, writing in the January number on the Treatment of Uterine Inertia, mentions that he has found quinine taken in 5-grain doses at intervals of two hours to be a valuable oxytocic, and that in several cases where the first stage of labour was prolonged for five days and upwards bipolar podalic version, with careful gradual extraction, was followed by firm contraction of the uterus without the least tendency to post-partum hæmorrhage, thus contrasting favourably with the ordinary experience of forceps under similar conditions. M. S. V. Wechsler contributes an illustrated article in the French language on an Abscess of the Parietal Lobe of the Right Cerebral Hemisphere. Mr. Christopher Martin writes on the Treatment of Puerperal Fever.

*Dublin Journal of Medical Science.*—The original communications in the January number are by Dr. J. M. Finny on Acute Hæmorrhagic Ascites, by Mr. J. S. McArdle on the Operative Treatment of Hernia, by Dr. H. S. Purdon on Lupus Erythematosus, and by Dr. Patrick Letters on Public Health and Preventable Disease in the Counties of Cork, Kerry, and Waterford.

*La Grèce Médicale.*—This monthly journal, printed entirely in the French language, made its first appearance at Syra in Greece in December, 1898. Dr. John Foustanos of Syra, who has for several years conducted the journal Ἰατρικὴ Πρόοδος (Le Progrès Médical), printed entirely in Greek, believes that the unfamiliarity of most European nations with modern Greek has prevented foreigners from realising what progress has of late been made by his countrymen in medical science and literature, and with the view of remedying this deficiency he has brought out *La Grèce Médicale*, which is distinct from and very much smaller than Ἰατρικὴ Πρόοδος, although it is intended that a portion of the contents, such as reviews of books, shall appear in French in the one journal and in Greek in the other. Among the original communications in the first two numbers of *La Grèce Médicale* may be mentioned papers on the Malarial Diathesis in the Caucasus by Dr. Timoleon Triantaphyllides of Batoum; on the Use of Berberine (the alkaloid of Berberis vulgaris) in the Treatment of Malarial Enlargement of the Spleen by Dr. G. T. Lascarato of Patras; and on Large Uric Acid Calculi in the Urethra by the editor. The subscription to the journal is 4 francs per annum.

# Analytical Records
FROM
# THE LANCET LABORATORY.

### (1) THIOCOL; AND (2) AIROL (ROCHE).
(HUGO LORENZ, 7 AND 8, IDOL-LANE, E.C.)

THIOCOL is a comparatively new guaiacol derivative which, unlike most guaiacol compounds, is easily soluble in water. It is a white crystalline powder smelling freely of guaiacol. As a matter of fact it is the guaiacol-sulphonate of potassium. It is said to contain 60 per cent. of guaiacol. The advantages which this compound possesses over guaiacol are that while its administration is said to give encouraging results in the treatment of pulmonary tuberculosis it does not irritate the mucous membrane, while being freely soluble in water it is more readily assimilable. Airol is the oxyiodogallate of bismuth. It yields abundance of iodine on treatment with nitric acid. In spite of this it is devoid of iodous smell. It is suggested as an advantageous substitute for iodoform possessing three times the bulk of pure iodoform. These properties combine to make airol an excellent antiseptic application, especially in the form of a dusting powder, or it may be used with an unguent.

### LEUBE ROSENTHAL'S MEAT SOLUTION.
(H. POTHS AND CO., 4, 5, AND 6, BURY-COURT, ST. MARY AXE, E.C.)

The analysis of this preparation gave the following results: moisture, 65·22 per cent.; meat substances insoluble in cold water, 14·64 per cent.; meat substances soluble in cold water, 11·64 per cent.; and fat, 4·54 per cent. It is not quite clear to us why this preparation is called a "solution." It presents the appearance of pulped beef, that is, beef in a fine state of division. It possesses an excellent flavour and makes a very palatable broth or soup. Doubtless on account of the fine pulpy state to which the muscular fibre has been reduced it is easily digestible. As regards nutrient value it is decidedly superior to a clear extract which invariably contains a very large amount of stimulating extractive principles in proportion to real nutritives. It contains only traces of proteoses.

### OLD IRISH WHISKY.
(JOHN MCLAUGHLIN, COLERAINE.)

It is conceivable through the enormous demand during recent years for Scotch whisky to the exclusion of Irish whisky that the stock of the latter has been laid by with the advantage that it has since undergone maturation in cask under the influence of age. For this reason the chances of genuine Irish whisky being old are considerable. We have recently examined a specimen sent to us by the above firm of distillers and the results of examination and analysis are quite in accordance with the statement that it was distilled as long ago as 1889. The analytical results were as follows: alcohol, by weight 43·00 per cent., by volume 50·57 per cent., equal to proof spirit 88·62 per cent.; extractives, 0·17 per cent.; mineral matter, 0·05 per cent.; and acidity reckoned as acetic acid, 0·06 per cent.

The spirit is decidedly dark in colour and the taste characteristic of good Irish whisky—i.e., peaty but very smooth and mellow. It is destitute of that harsh character which makes raw and young spirit dietetically unsuitable.

### ITALIAN WINES.

(EGIDIO VITALI, 5 AND 6, GREAT WINCHESTER-STREET, E.C.)

The specimens received, all of which we have submitted to analysis and examination, represent most of the types of wine which are imported into this country from Italy. We will record first the figures of analyses. Capri (white wine): extractives, 1·55 per cent.; mineral matter, 0·25 per cent.; sugar, 0·76 per cent.; tartaric acid, 0·52 per cent.; acetic acid, 0·31 per cent.; alcohol, by weight 11·62 per cent., by volume 14 37 per cent., equal to proof spirit 25·18 per cent. Falerno (white wine): extractives, 1·12 per cent.; mineral matter, 0·19 per cent.; sugar, 0·11 per cent.; tartaric acid, 0·66 per cent.; acetic acid, 0·13 per cent.; alcohol, by weight 8·64 per cent., by volume 10 73 per cent., equal to proof spirit 18·81 per cent. Chianti (red wine): extractives, 2·00 per cent.; mineral matter, 0 29 per cent.; sugar, 0·17 per cent.; tartaric acid, 0·60 per cent.; acetic acid, 0·18 per cent.; alcohol, by weight 9·36 per cent., by volume 11·61 per cent., equal to proof spirit 20·35 per cent. Barolo (red wine): extractives, 2·07 per cent.; mineral matter, 0·24 per cent.; sugar, 0·18 per cent.; tartaric acid, 0·45 per cent.; acetic acid, 0·25 per cent.; alcohol, by weight 10·85 per cent., by volume 13·43 per cent., equal to proof spirit 23·54 per cent. Barolo Tenimento (red wine): extractives, 1·88 per cent.; mineral matter, 0·22 per cent.; sugar, 0·13 per cent.; tartaric acid, 0·48 per cent.; acetic acid, 0·24 per cent.; alcohol, by weight 10·85 per cent., by volume 13·43 per cent., equal to proof spirit 23 54 per cent. Valtellina (red wine): extractives, 1·99 per cent.; mineral matter, 0·27 per cent.; sugar, 0·13 per cent.; tartaric acid, 0·41 per cent.; acetic acid, 0·29 per cent.; alcohol, by weight 9·36 per cent., by volume 11·61 per cent., equal to proof spirit 20 35 per cent. Egidio Vitali (sparkling white wine): extractives, 5·99 per cent.; mineral matter, 0·20 per cent.; sugar, 3·67 per cent.; tartaric acid, 0·79 per cent.; acetic acid, 0·26 per cent.; alcohol, by weight 10·08 per cent., by volume 12·49 per cent., equal to proof spirit 21·89 per cent. Space will only admit of brief comment on these results. The noteworthy features of the white wines are a very small percentage of saccharine constituents, a very light alcoholic strength, and a small percentage of extractive matters. Falerno is a high-class wine of very agreeable character and remarkably light with a very small percentage of sugar. Capri is similar but distinctly sweeter though the sugar amounts to no more than ¾ per cent. Both wines have the excellent delicate flavour and bouquet of the grape. In considering the white wines we may include the sparkling Egidio Vitali which is hardly distinguishable from good champagne. It is fairly dry and of a tone and quality characteristic of champagne. It is very moderate in price and a genuine product of the grape. As will be seen from the analysis the red wines also show results in accordance with genuineness. The Chianti is a dry, faintly astringent claret of good fruity character. Valtellina is full-bodied and satisfactory to the palate. Barolo, again, is of the Burgundy type, a rich wine full of vinous character and yet of light alcoholic strength. Lastly, we have examined a liqueur called "Eucalyptine" made by the Trappiste Fathers at the Three Fountains, St. Paolo, at Rome. It is a very agreeable liqueur containing the volatile and aromatic constituents of the eucalyptus plant. It is probably digestive and is regarded, though with little foundation we think, as a specific in malaria. These wines are excellent in class and character and undoubtedly pure and genuine products of the grape. Many of them though full-bodied and fruity to the taste are remarkably light in regard to alcoholic strength. They therefore afford a light and agreeable form of stimulant for dietetic purposes.

### VARNISHED COATED PILLS.

(MR. S. WAND, HAYMARKET, LEICESTER.)

The special point about some pills which we have received for examination from the above firm is the coating. The pills are highly finished in appearance with a lustrous coating of a varnish-like substance. The pills examined contained sulphate of iron and carbonate of potassium in accordance with Blaud's formula. On placing them in a solution of an acid strength equal to the gastric juice we found that the coating in a few minutes became detached in flakes, the contents thus being soon exposed to the solvent and disintegrating action of the fluid. The unstable iron salt was found intact, for on examining the solution the iron proved to be entirely in the unoxidised condition. Despite therefore the protective action of the coating against the changes induced by contact with air it yields readily to the action of acid solutions of the nature of gastric juice.

### MARSALA WINES.

(INGHAM WHITAKER AND CO. MARSALA AGENCY: STUART N. CORLETT, 11, TRINITY-SQUARE, TOWER-HILL, E.C.)

Two types of Marsala wine have been submitted to us analogous to the "fino" and "oloroso" classes respectively of sherry. The results of analysis were as follows:—Racalia: extractives, 3·68 per cent.; mineral matter, 0·48 per cent.; tartaric acid, 0·67 per cent.; acetic acid, 0·15 per cent.; sugar, 0·73 per cent.; alcohol, by weight 12·69 per cent., by volume 15·68 per cent., equal to proof spirit 27·48 per cent. It is a dry, light, and pleasant wine. Amoroso: extractives, 7·07 per cent.; mineral matter, 0 63 per cent.; tartaric acid, 0·68 per cent.; acetic acid, 0·13 per cent., sugar, 4·8 per cent., alcohol, by weight 16·69 per cent., by volume 20·52 per cent., equal to proof spirit 35·95 per cent. As will be seen this wine is more full-bodied than the previous specimen. It is a generous pure wine suitable for after dinner use, while Racalia may be considered on account of its relatively light alcoholic strength better adapted for table purposes. Both wines contain an important amount of sulphate of potassium, from which we infer that the grapes have been treated, as in the preparation of sherry, with sulphate of lime. As was pointed out in the report of THE LANCET Analytical Commission on Sherry in THE LANCET of Oct. 29th, 1898, this treatment favours the production of vinous ethers, while no objection can be reasonably raised against the method so long as it is kept within certain limits.

## FIRST REPORT OF THE ROYAL COMMISSIONERS ON THE METROPOLITAN WATER-SUPPLY.

THE first report of Her Majesty's Commissioners appointed to inquire into the subject of the water-supply within the limits of the metropolitan water companies was issued by Her Majesty's Stationery Office last week. It is dated Dec. 20th, 1898. The report deals only with one section of the reference—namely, "whether it is practicable to connect any two or more different systems of supply now administered by the eight metropolitan companies; and, if so, by whom, and in what proportion, should the cost of connecting them be borne, and what are the legal powers necessary to give effect to any such arrangement." The report is divided into eight sections, all of which are important. The chief recommendations of the Commissioners may be given in their own words as expressed in Section 5, namely, that "from the point of view of the consumer ..... inter-communication between the several systems of supply, provided it is carried

out to a reasonable extent and on well-considered lines, is not only useful and expedient but necessary." The report is signed by the Chairman and by all the other Commissioners.

The first section of the report gives an account of proposals of the associated metropolitan water companies which were made to the Commissioners at the outset of their inquiry. The companies announced that they had come to the conclusion that inter-communication would be a convenience and stated that they were prepared to promote a Bill in Parliament during the next session which would make it unnecessary for the Commissioners to inquire into the details of any particular scheme and would obviate difficulties due to the existing statutory obligations of the companies and restrictions which are at present placed upon them in regard to the application of their powers to purposes other than those required for their own districts. The counsel for the companies communicated a series of resolutions which had been passed by the directors of the associated companies and which stated their views as to the form which legislation should assume in dealing with the question. These resolutions were as follows:—

1. The companies forthwith to consider what works are required for the above objects and to submit proposals to the Local Government Board for approval. The Local Government Board to be empowered to approve and authorise such works with or without modifications or to authorise and order other works for the like objects. 2. Further works for the above objects may in like manner be from time to time authorised and ordered if and when required. 3. The respective companies to carry out in their respective districts all works so authorised. 4. The Local Government Board to be empowered to authorise the supply of surplus water from the works of any company to the works of any other company for the time being requiring the same, and the Local Government Board to have power in case of emergency to authorise any of the companies to take more water from the Thames than they are now authorised to take. 5. All expenditure of the respective companies in relation to any such works to be deemed capital expenditure, and for the purpose of meeting such expenditure the Local Government Board to be empowered from time to time to authorise the respective companies to issue an additional amount of debenture stock. 6. No contribution to any sinking fund to be made in respect of capital issued for the foregoing objects. 7. Subject to reasonable contribution by any company taking and utilising by means of the proposed works and powers water which it would not otherwise have been able to take and utilise, the interest on debenture stock applied by the respective companies for the foregoing works to be borne by the eight companies in proportion to their respective water rentals. 8. Any company taking water from another company to pay for such water to the company supplying it at a rate to be agreed upon or fixed by arbitration. 9. A standing arbitrator to be appointed by the eight companies, and failing such appointment by the Local Government Board, and in case the respective companies do not agree amongst themselves, such arbitrator at the end of each year to decide as to the contribution of any company taking and utilising the water rendered available by the proposed works and also to decide any matters in difference between the companies.

The second section of the report deals with three schemes of intercommunication which were submitted. The first scheme was drawn up by the engineers of the eight metropolitan companies and was dated Oct. 18th, 1897. This scheme was afterwards withdrawn and an amended report of the engineers of the London water companies, dated Oct. 24th, 1898, was substituted for it. The amended report was prepared with special reference to the circumstances of the year and the scheme was made possible by the fact that works belonging to the Southwark and Vauxhall Company at Battersea might be temporarily utilised. The amended report is published as an appendix to the report of the Royal Commissioners. A full account of this scheme has recently appeared in THE LANCET,[1] and it is unnecessary to reproduce it. The third scheme submitted to the Commissioners is described by them as being in effect a portion of Scheme No. 2, and has already been partially carried out and put into operation to meet the emergencies of the East London Company during the past year.

The third section of the report deals with the present capacity of each company to contribute water to any other company which may be in need of it. The Commissioners state that in view of the fact that the utility of connexions between systems of supply must materially depend on the possession by several companies of surplus supplies of water they thought it necessary to examine the engineer of each company on this particular point. The information obtained was briefly as follows:—

The Chelsea Company possess a statutory right to abstract 22,000,000 gallons daily from the Thames. At the present time, however, the company are only able to filter, pump, and pass into their mains 17,000,000 gallons daily. The engineer gave it as his opinion that during the months of June, July, August, and September the company could not spare more than 2,000,000 or 3,000,000 gallons daily. The Commissioners therefore infer that in order to utilise for transfer to any other company the balance of the amount of water which the company has power to abstract from the Thames it would be necessary to provide additional filters, pumping-power, and mains.

In the case of the Grand Junction Company only 1,500,000 gallons daily can be spared. The company has a statutory right to take 24,500,000 gallons. During the summer of 1898 the maximum daily amount taken was 23,500,000 gallons and the average daily abstraction from January to October was 21,000,000 gallons. Additional pumping power and new mains would be required in order to enable the company to contribute to others any considerable amount of water.

The condition of the Kent Company is unique. The wells from which the water is derived are scattered throughout a large district and the water is obtained from the store contained in the chalk formation. As there are a large number of wells the company has not found it needful to provide large mains for the carriage of water as companies which obtain their water wholly or in part from one intake must necessarily do. There is no cause to apprehend sudden or extensive curtailment of water-supply from drought as the reservoir in the chalk tapped by the wells is so large that it is very slowly affected by deficiencies in the rainfall. It follows that the Kent company have no reason to have a large reserve supply either with regard to pumping power or to storage reservoirs. Hence the company would not be able to transfer much water and there is no probability that a large amount would be wanted by them from other companies. At the present time the company can obtain 25,000,000 gallons daily. The largest amount supplied in 1898 in any one day was 21,000,000 gallons. At the present time the company can supply 2,000,000 gallons to a district outside its own area. For a short time during the year 1898 the company was brought to the limit of its supply in consequence of a breakdown of the pumping engine at Wilmington well and a coincident failure in the well at Orpington. Works are, however, nearly completed which will increase the available water-supply of the company.

The Lambeth Company could at present spare no water. The company have statutory power to abstract from the Thames 24,500,000 gallons each twenty-four hours. The average daily supply of the company in the year 1897 was 23,688,305 gallons, and the rate of supply in September, 1898, was 31,891,317 gallons. The company contend that the statutory limit of abstraction of water from the Thames is not exceeded, and that the surplus water is obtained from the gravel beds adjoining the river, but the Commissioners point out that according to the report of Lord Balfour's Commission abstraction from the gravel is equivalent to abstraction from the river itself.

The West Middlesex Company has a right to abstract 24,500,000 gallons from the Thames in each twenty-four hours. The available surplus for the five months from June to October, 1898, was 1,542,106 gallons. The daily supply of water to customers is increasing yearly at the rate of about 300,000 gallons and the limit of the amount of water which the company could therefore spare is 1,500,000 gallons daily. In order to increase the capacity of the company to supply water it would be necessary to have further statutory powers for taking water; a main would have to be laid from Hampton to Barnes and probably additional pumping power would have to be erected and in the case of any quantity exceeding 5,000,000 gallons a day an additional main would have to be laid from Barnes to Campden Hill.

*(To be continued.)*

[1] THE LANCET, Jan. 7th, 1899, p. 49.

**BOARDS OF GUARDIANS AND THE VACCINATION ACT.**—The Tiverton Board of Guardians on Jan. 10th decided to petition Parliament to repeal or amend the Vaccination Act of 1898, pointing out that in their union no difficulty had been experienced in enforcing vaccination prior to that Act.—At a meeting of the Okehampton Board of Guardians held on Jan. 8th it was decided to send a petition against the new Vaccination Act to the Local Government Board, both Houses of Parliament, and the Devon County Council.—The Merthyr Tydvil Board of Guardians on Jan. 7th decided to petition against the Vaccination Act.

# THE LANCET.

*LONDON: SATURDAY, JANUARY 28, 1899.*


WE have lately devoted much space to accounts of the Irish medical dispensary system and to speculations on the probable effects of recent legislation on this system and on sanitation in Ireland. Our Special Commissioner's report will well repay the study of those who are apt to think that medical grievances have reached their acme in England. They have the advantage of being written by one who is not personally interested in the system and who is very familiar with investigations into schemes for exploiting the medical profession in the supposed interest of the humbler sections of society without due reference to the claims of the medical man or to the needs of the sick.

To-day we revert to the subject of the Irish dispensary system in connexion with a report on the matter by the Irish Medical Association—a document of extreme interest and of great moderation of statement which cannot fail to bring home to those who are responsible for medical attendance on the poor of Ireland the necessity for an immediate reform of the existing system alike in the interest of the poor and of the medical profession. The peculiar economic conditions of Ireland, the area of the country, and the large number of the inhabitants devoted to agricultural purposes render some such system—for the present at least—indispensable. But it is scarcely credible that the grievances set forth by the Irish Medical Association should continue to exist and their adequate redress should be one of the first fruits of an improved and more liberal measure of local government for Ireland. The case for such improvement combines every element that can appeal to a people like the Irish. The existing system does not meet the wants of the Irish poor for whom it was originally intended; and the plight of the dispensary medical officer working on sometimes for fifty years, till seventy, eighty, or ninety years of age, without promotion and without any certainty of pension or superannuation, is pitiable beyond description and thoroughly discreditable to the State. We give elsewhere a short abstract of the Report of the Irish Medical Association on the grievances of the service. They are discussed under various heads: the abuse of tickets; the small remuneration with no allowance for travelling expenses; the absence of any provision for a break in the monotony of work in the shape of an annual vacation; the absence of provision for superannuation or for earlier retirement under exceptional circumstances; and the absence of all prizes and promotion in the service. Tickets are abused by being issued to persons of property and position, without system, without inquiry into the gravity of cases, at all hours of the day, and the hapless dispensary medical officer has often to retrace his ground for miles, perhaps over bogs or mountains—all this for an average salary of £108, as he ministers to an average population of 6557 over an average area of 44 square miles. The salary itself scarcely suffices for the necessaries of life and yet all the expenses of travelling in these sparse and remote regions have to be paid out of it. Vaccination is, it is true, an extra. But it is not remunerative. Stations are so distant that often the fees do little more than pay the car-hire. An instance in the report is given where the dispensary medical officer had to visit twice a quarter 7 stations, vaccinating 100 children a year. For this he received the handsome sum of £10, out of which he had to pay £9 16*s.* for his car. Let us suppose that this duty was not performed and that the poor of Ireland were left to the tender mercies of small-pox. What would the misery of that alternative be, and what, we may add, would be its cost in a country where crowded homes and "wakes" give such diseases full scope for development? The full hardship to the medical officer under the existing system is strikingly shown in the report under the head of Superannuation. It is difficult to say which case is the more pitiable—that of the young medical officer dying—often from infectious disease—at an average age of thirty-seven years; or that of the old one longing for the rest that is due to him but afraid to resign in the absence of a pension for work which he may have been at for half a century. The report gives instances which will surprise those who read it and which seem to justify the remark of those responsible for it that the severity and danger of dispensary duty are so great that few dispensary medical officers reach a retiring age. Our Special Commissioner has dealt powerfully with the right to pensions of men who in a sense more vivid than other Civil Servants devote their whole lives and their whole time to the case of the poor. The cases in this report quoted from Sir WILLIAM THOMSON who has done so much to elucidate this subject strikingly enforce the arguments employed by our Commissioner and will, we hope, attract attention in the proper quarter.

The report concludes with recommendations for the remedy of the evils so well described. One evil must be faced resolutely—that of issuing tickets to unfit persons and from unworthy motives. But it is equally essential in the interest of the tone and character of the service that the rate of remuneration should be increased and that some elements of reward and promotion should be introduced into a career so monotonous, so laborious, and so responsible. These needed reforms in one of the most important services affecting the welfare of the Irish people will not be accomplished without firmness and persistence and some show of independence on the part of the profession in Ireland. The profession must be true to itself. The Irish people enjoy the reputation of being chivalrous and generous to medical men. We believe this to be their intention. They cannot as regards the Poor-law Department give adequate fees. Much poverty in the past has made that impossible, but they have it now in their own power to deal with some approach to justice with the profession in its public relations and that they will do so we confidently anticipate; and we

trust that they will in so doing be encouraged and assisted by the Local Government Board of Ireland.

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A LOCAL GOVERNMENT BOARD inquiry of more than usual interest from a public health point of view was held at Havant on Dec. 13th and 23rd, 1898, before Dr. TIMBRELL BULSTRODE and Mr. TULLOCH, M.Inst.C.E. Havant is a small market town in Hampshire, about 8 miles from Portsmouth. At the last census its population was 3474, but since 1891 it has largely increased in size and at the present time it has a rateable value of £13,398. Almost in the centre of the town and about 60 or 70 yards south of the main street are several springs belonging to the Borough of Portsmouth Water Company which supplies Portsmouth (having a population of nearly 200,000), Havant itself, several surrounding villages, garrison forts, and the ships in Portsmouth Harbour. In 1897, owing to complaints from the War Office, Dr. THEODORE THOMSON of the Local Government Board, assisted by Mr. WHITAKER, F.R.S., made a careful examination of the company's springs and their surroundings, and in the report to the Board attention was drawn to the possible risk of pollution of the springs from the insanitary condition of Havant. A copy of this report was sent by the Local Government Board to the Portsmouth Corporation who in turn forwarded it to the water company asking what steps in view of that report were being taken for the protection of the water. The authorities of the company replied that everything in their power had already been done for the protection of the springs and that if any risk of pollution still existed it was due to the Havant urban and rural councils having neglected to perform the duties required of them by the Public Health Acts, and especially in having neglected to provide their districts with a sufficient system of sewerage; they, the water company, therefore requested the Portsmouth Corporation to support them in a petition to the Local Government Board complaining of the default made by the Havant urban and rural district councils, and asking the board to limit a time for the performance by these councils of their duties in respect to the sewerage of their districts. The result was the present inquiry.

It will be at once evident from the foregoing remarks as to Havant that apart altogether from the advantage to the people of Havant itself the maintenance as far as possible of a perfect system of sanitation should have been regarded by the district councils as the most important duty entrusted to their hands and that no effort should have been spared to avoid all risk of pollution to the springs which supplied not only themselves but between 200,000 and 300,000 persons in addition. Unfortunately, according to the evidence given by Professor CORFIELD, Mr. BALDWIN LATHAM, Mr. E. C. SMITH, and other experts, this is very far from being the case, and the existing state of affairs is in no sense creditable to those responsible for it. It appears from the evidence given that the only sewers in the district are confined almost exclusively to parts of the four main streets, and that they consist of nine- and six-inch pipes some of which are jointed with clay. These which are but a little distance below the surface of the road were laid over thirty years ago and were not intended to take solid matter; in fact, the houses connected with them are in certain instances provided with a catchment basin to intercept and prevent the solids from gaining access to the sewers; the majority of houses are provided with cesspits nearly all of which are pervious to water and as they are but rarely emptied it is evident that soakage is continuously taking place into the surrounding soil. Four or five streets in the neighbourhood of a couple of schools have no system of drainage or even sinks, the slop water being disposed of by being thrown into the road gutters; in one house the drain runs without any intercepting trap straight into an unventilated cesspool. It is unnecessary to enumerate all the flagrant insanitary conditions described at the inquiry; one more, and perhaps the most glaring, example was a stream which runs through the centre of Havant and which receives in its course the overflow from several cesspools, the manufacturing refuse of a parchment works and a chamois leather manufactory; it then skirts the enclosures of the water company, and, finally, after feeding a watercress bed, discharges into Langstone Harbour, in which, by the way, are a number of oyster beds. All these conditions and numerous others were practically admitted as existing by the Havant Urban Council, the only argument brought forward being that such had always been the state of affairs in the past.

It would probably be rather difficult to find a better example of the supineness of small urban and rural sanitary authorities than was exhibited in this town of Havant, a fairly accurate estimation of the value of sanitation in whose eyes may be adduced from an advertisement which appeared not long ago in the local papers for the appointment of a sanitary inspector whose salary was to be £30 a year, and even that munificent sum is £5 more than is paid to the Havant medical officer of health. The insanitary condition of small towns like Havant—and anyone conversant with rural sanitation could name numerous places equally bad—is a very difficult subject to deal with and if the indifference of such towns to sanitation recoiled only on their own heads it would not be such a serious matter; but when, as in this case, thousands of lives are jeopardised by ignorance then we are face to face with a danger which affects the country generally. Nor is it only in regard to the pollution of a water-supply that the danger to the general public occurs; quite as important is the danger to the milk-supply. The majority of the milk-supplies of the large towns are obtained from rural and small urban districts. The sanitary supervision of these districts is vested generally in the farmers and cow-owners in the district, and it is commonly found by rural medical officers of health that it is hopeless to try to get regulations enforced as to the air space in cowsheds, pure water-supply, and cleanliness, when the enforcement of such regulations will entail a certain amount of expenditure by these farmers and cow-keepers. It was hoped that the appointment of county medical officers of health would tend to improve the condition of these rural and small urban districts, and in many counties a marked improvement has taken place consequent upon such appointments. But several county councils, of which Hampshire is one, have not yet appointed a medical officer and thus the district

councils are allowed to go on in their own ignorant fashion, meeting every suggestion for improvement with the argument that what was good enough for their fathers is good enough for them and there is no one to try to arouse them to a sense of duty or to point out that the preservation of health is the most important duty entrusted to their hands and should be maintained even at the addition of a penny or twopence in the £ to the rates. Ignorance and indifference are the worst enemies which modern sanitation has to deal with, and methods have yet to be devised to bring home to district councils in many parts of the country the advantages direct and indirect which result from obedience to the laws of health. It is, however, certainly to be hoped that in the matter of the sewerage of Havant the Local Government Board will take steps to force this Council to carry out its long neglected duty, and further that the state of affairs brought to light in this town will induce the County Council of Hampshire to consider the advisability of providing themselves without delay with a competent medical adviser.

THE clear and identical judgments of Mr. Justice LAWRENCE and Mr. Justice CHANNELL in the important case of HUNTER *v.* CLARE, the substance of which judgments will be found in a brief report of the case on page 256, leave very little to be desired in the way of exposition. The trouble in this case of dispute about the rightful uset of the word "physician" arose—as all the numerous disputes which have been from time to time threshed ou in our columns and in those of the lay press about the title of "doctor" have arisen—out of the use of the same words for an academic style and a popular designation. When a man calls himself a "doctor" does he mean simply to convey to the public that he follows the profession of healing and is consequently applying to himself the colloquial title by which members of the profession of healing are known to the public? Or does he mean to arrogate to himself an academic title signifying the possession of a medical degree at a recognised university? In the case of the title of "doctor" we have always maintained that the medical man in his professional relations with the public should be most careful only to give himself the style that belongs to his degrees or his diplomas, holding that for a licentiate or a member of a corporation to call himself "doctor" is wrong. In our columns we have supported this view by words and by example, and although now and again we have received protests, based mainly upon one or two unavoidable inconsistencies, we have reason to believe that the profession as a whole take the view which we have put forward. The case of HUNTER *v.* CLARE reopens—for the point has been debated before—the same question concerning the style of "physician." Who has a right to call himself a "physician"—anyone qualified to practise "physic," or only the possessors of certain degrees or diplomas? We do not now discuss other issues raised by this litigation. The reason of the original prosecution of the late Mr. HUNTER and the management of their share in the matter by the General Medical Council are important enough matters, but they have nothing to do with the subject at present under consideration, It is sufficient to remind our readers that Mr. HUNTER was convicted before a bench of magistrates of Cambridgeshire of having wilfully and falsely pretended to be, and taken and used the name and title of, a physician contrary to Section 40 of the Medical Act, 1858. Mr. HUNTER'S alleged offence against the Act consisted in calling himself "physician" upon his billheads, his registrable diploma being the Licence of the Society of Apothecaries dated 1893. Against this conviction the appeal which has just been decided was lodged in the name of Mr. HUNTER who has died since the proceedings in the magistrates' court, but supported by the Society of Apothecaries whose Licentiates are nearly concerned. Mr. Justice LAWRENCE and Mr. Justice CHANNELL concurred in finding that Mr. HUNTER, as a Licentiate of the Society of Apothecaries, was not entitled to call himself a physician, but that in so styling himself he had not wilfully misdescribed his qualification; the conviction, therefore, in their joint opinion must be quashed, but the appellant could not be allowed his costs. This is a serious decision for the Society of Apothecaries, many of whose Licentiates are certainly describing themselves as physicians with no idea of wilful deception, but simply because being duly licensed to practise in medicine as well as in surgery and midwifery they consider that they are correct to assume this designation. Those who so interpret the 40th Section of the Medical Act of 1858 must now consider themselves wrong and must understand that the word "physician" has been used in the Medical Act strictly to mean possession of certain degrees or diplomas and not generally to mean possession of a medical qualification.

# Annotations.

"Ne quid nimis."

## THE PRINCE OF WALES AND THE MEDICAL PROFESSION.

THE occasion of the delivery by Sir William Mac Cormac of the Hunterian Oration at the Royal College of Surgeons of England this year will be distinguished by the presence of the Prince of Wales who has also graciously consented, at the President's invitation, to dine with the College the same evening. It is not the first time that the Prince of Wales has honoured the Hunterian orator by attending the delivery of the oration. He was present when Sir James Paget and Mr. Bryant were the orators. Nor is it the first time that His Royal Highness has dined with the College, but there are circumstances that make his presence especially gratifying to the College this year. The Prince of Wales has clearly designed to do honour to the medical profession at a time when he has just received the benefits of surgery, while his host on the occasion will be the surgeon responsible for the line of treatment which was then adopted. By the way, the Royal College of Surgeons of England, remembering that the Prince is a Fellow of the Royal College of Physicians of London, may desire to give him the second qualification necessary to registration and elect him a Fellow of the Royal College of Surgeons of England.

## METROPOLITAN WATER BILLS.

SEVERAL bills having reference to the London Water-supply have been deposited at the Private Bills Office. Amongst these are two promoted by the London County

Council, one by the East London Waterworks Company, and one by the Metropolitan Water Companies. The titles of the bills are as follows:—1. "A Bill to authorise the Construction of Aqueducts and Works for the Supply of Water to London and neighbourhood; and for other purposes." The short title of this bill is "London Water (Aqueducts and Works)." 2. "A Bill to authorise the Construction of Reservoirs and Works in Wales for the Supply of Water to London and neighbourhood and for other purposes." The short title of this Bill is "London Water (Welsh Reservoirs and Works)." These two Bills are promoted by the London County Council. 3. "A Bill to authorise the East London Waterworks Company to Construct Additional Storage Reservoirs and other Works and to raise further money and for other purposes." The short title of the Bill is "East London Water." 4. "A Bill for Improving and Facilitating Intercommunication between the Mains and Works of the Metropolitan Water Companies." The short title of the Bill is "Metropolitan Water Companies." It is promoted by all the metropolitan water companies. It will be seen that in each case the chief objects of the Bill are clearly stated in its title. The Metropolitan Water Companies Bill came before the Examiner of Private Bills on Monday, Jan. 23rd, and was passed without opposition. The London Water (Aqueducts and Works) and London Water (Reservoirs and Works) Bills have met with considerable opposition at the Private Bills Office. The Welsh Reservoirs Bill has been opposed by a memorial presented by nearly a hundred signatories and five sittings have already been held by the Examiner of Private Bills to consider the technical bearing of the allegations made against it. In some cases the Examiner found that notice had not been given to owners of property affected by the scheme. In one rather curious case a notice had been served on one John Jones who was not the owner of the property with the possession of which he was credited. He was by no means the only man of that name in the district, and the estimated number of John Joneses varied from three to five. In this case the Examiner thought the wrong gentleman had obtained the notice by misadventure and that the promoters of the Bill were not to blame. Four memorials have been presented against the London Water (Aqueducts and Works) Bill; amongst the memorialists are the Middlesex County Council.

## DO WOMEN BEAR ABDOMINAL OPERATIONS BETTER THAN MEN?

THIS is pre-eminently the age of statistics. Of late years so much care, ingenuity, and industry have been devoted to the compilation of tabular statements affecting pretty nearly every subject under the sun that averages alone have come to be esteemed as worthy of notice, the salient instances by which public opinion used formerly to be in a great measure formed and guided being now regarded as of no more value than any other of the similar but obscure items in the same category. It would be difficult to find a subject in either medicine or surgery which has not been exposed to the test of figures and especially is this the case with regard to operations. Amongst other points all more or less noteworthy the influence exercised on the results of surgical interference by age, temperament, nationality, latitude, season, the experience of the operator, &c., has been statistically recorded with much advantage, while incidentally these investigations have likewise been by no means barren. For some considerable time the supposition that grave surgical operations were better supported by women than by men was rather extensively entertained, but it was not until totals had been systematically tabulated that we were afforded reliable grounds for believing that members of the so-called feebler sex could endure the knife with greater advantage than those of the sex which is inured to labour and hardship. The following figures, supplied by Haberkant and quoted by Professor Tarnier in a lecture last summer, would certainly seem to afford *primâ-facie* evidence of the exactitude of the proposition. In 117 cases of gastro-enterotomy in the male there was a mortality equal to 54 per cent., while in 96 similar cases in the female it was only equal to 35 per cent., a difference of very nearly one-fifth. In pylorectomy the discrepancy was not quite so prominent, the mortality after 70 operations in the male and 140 in the female being at the rate respectively of 64·3 and 52·8 per cent., an advantage in favour of the latter of only 11·5 per cent. As may be supposed a great many theories have been advanced in explanation of this sexual peculiarity. In the opinion of one profound observer who has actually been bold enough to place his lucubration on record in print women suffer less than men after capital abdominal operations because it is especially characteristic of this sex to enjoy this comparative immunity. As Professor Tarnier did not fail to remark, this intelligent explanation reminded him of the well-known character in Molière who so strenuously maintained that opium caused somnolence because it was endowed with soporific properties! According to Dr. Marcel Baudouin, however, it is not impossible to furnish reasons which at all events are plausible for the fact that females support operations better than males. In the first place, pregnancy makes the abdominal parietes thin and flaccid, thus enormously favouring examination and consequently helping to an accurate diagnosis. Secondly, women are more prone to complain than men, especially in connexion with anything that concerns their reproductive systems. In this way their cases come under observation at an early stage when surgical interference is less of a *pis aller*. Thirdly, men as a rule hate confinement, whereas women are accustomed to an indoor life. Fourthly, women do not smoke or drink and nature consequently can exert her recuperative qualities more effectually.

## UNFIT HOUSES.

IT will be remembered that Mr. Gilbert's Lord Chancellor used to sing nightly, "The law is the true embodiment of everything that's excellent; it has no single fault or flaw." Be this as it may, the law is constantly providing the most eccentric situations, and one of these has just occurred in the Borough. In 1895 some cottages in Red Cow-alley were closed by order of the magistrates and were dismantled but not pulled down. Dr. Waldo (medical officer of health for St. George-the-Martyr, Southwark) then urged that the old buildings and drains were a source of danger to public health and that the site ought to be cleared. The vestry accordingly made an order for demolition under the Housing of the Working-classes Act, 1890. The owners of the property appealed and the case was heard at the South London Sessions on Jan. 13th. After a long hearing the court decided against the order but agreed to state a case for a higher court. The court held that the houses were uninhabited and consequently not dwelling-houses within the meaning of the Act of 1890. Counsel for the owners of the property said that a dwelling-house was defined as an inhabited building. Counsel for the vestry argued that the word "building" used in Section 33 of the Act meant a closed dwelling-house. Therefore the position would seem to be as follows. To pull down a house under the Housing of the Working-classes Act it must first be closed. Unless somebody, owner or tenant, is enclosed too the building ceases to be a dwelling-house because nobody dwells in it. Then it cannot be demolished under an order for dealing with dwelling-houses. Truly a fit *motif* for a Savoy opera. We shall await the decision of

the High Court with interest. Possibly, again to quote Mr. Gilbert's Chancellor, the court will find that the insertion of a "not" will meet all difficulties. If it were required that a house should not be a dwelling-house before it could be pulled down matters might come all right.

## A NEW PROTEID IN MILK.

To the three proteids already known to exist in milk—albumin, globulin, and casein—a fourth must now be added which has been named by its discoverer, A. Wróblewski, "opalisin" from the opalescent appearance of its solutions. M. Wróblewski has given a description of it in Hoppe-Seyler's *Zeitschrift für Chemie*. It exists in largest quantity in human milk; a similar if not identical substance is less abundant in the milk of the mare; and there is yet another which, however, only exists in very small quantities, in the milk of the cow. Its percentage composition is:—C, 45·01; H, 7·31; N, 15·07; P, 0·80; S, 4·70; and O, 27·11. This new proteid does not reduce Fehling's solution after boiling with hydrochloric acid and it yields no pseudo-nuclein when digested with pepsin. For the solution of one gramme 121·3 c.cm. of a solution of soda containing 1 part of the alkali to 100 parts of water are required. It responds to the biuret, Millon, and xanthoproteic tests and also to that of Adamkiewicz. It was obtained by the addition of sodium chloride to the fluid remaining after the precipitation of the casein in human milk by hydrochloric acid.

## THE APPOINTMENT OF COUNTY MEDICAL OFFICERS OF HEALTH.

THE subject of the appointment of county medical officers of health bids fair to become a question as perennial and as strenuously fought as that of vaccination. Although, however, the northern counties have supplied by far the greater number of conscientious objectors they are in many cases ahead of the south in the matter of the appointment of county medical officers of health, and in our issue of Nov. 26th we compared Lancashire, Durham, and the West Riding which had appointed county medical officers with counties such as Somerset, Devon, and Cornwall which had not. We are glad to see that the Wiltshire County Council decided recently to appoint a county medical officer but this very sensible resolution seems to have raised the ire of the district councils and at a meeting of the Salisbury District Rural Council held on Jan. 6th a request was considered from the Devizes Rural District Council inviting the concurrence of other district councils to memorialise the county council against the appointment. After a great deal of argument it was agreed by 19 votes to 3 to comply with the request of the Devizes Council. Mr. Robinson is reported as saying that "what they wanted was a sanitary surveyor ..... not a medical officer full of whims and fads who would not allow them to call their souls their own." Mr. C. Drake thought the appointment of a county medical officer would tie their hands. If there were any wells which required to be seen to or nuisances to be abated it was the duty of individual councillors to call attention to them, and it was rather a slur on them if they did not do this. To take another county the motion to appoint a county medical officer for Somersetshire has been defeated, and during the debate it was argued that medical practitioners with incomes of £1000 a year would not submit to being "bossed" by an officer only receiving £500. We cannot believe that any district medical officer would be so silly as to say a thing like this nor can we understand how any councillor could be influenced by such an argument. There is one simple way out of this difficulty and that is to give the county medical officer £1000 a year instead of £500. There cannot be the least doubt that an administrative county should have a county medical officer, and as we have previously said[1] he must not only be specially qualified but be granted a salary giving him the necessary status of a county official. Otherwise he will either not be able to maintain the position necessary to his proper influence or he will use his post as a mere stepping-stone to higher things. The appointment of a county medical officer in the enjoyment of good salary and *pari passu* debarred from private practice is most valuable. He is not exposed to local jealousies, he can act without fear or favour, and his advice is often most valuable both to his own council and to the various district medical officers of health who can and do seek his advice upon matters connected with the sanitary administration of their various districts knowing that his influence may very probably further objects which they have greatly at heart but to carry out which they are practically helpless owing to the clashing of different interests and also because some of the owners of property whose interests are involved may very possibly be the private patients of the said district medical officers. Decentralisation is all very well but in sanitary matters as in everything else there must be a central head.

## A MODIFICATION OF LABORDE'S METHOD OF RESUSCITATION IN DEEP ASPHYXIA.

AT the meeting of the Académie de Médecine of Paris on July 5th, 1892, Laborde demonstrated his method of resuscitation in asphyxia by rhythmical traction of the tongue. He recommended that the tongue should be seized firmly and that traction should be made about 20 times a minute. In the *New York Medical Journal* of Dec. 10th, 1898, Dr. W. Freudenthal suggests a modification of this method. He considers that the effect is due to stimulation of the sensory nerves of the tongue and indirectly of the epiglottis, and that a greater effect can be produced by direct irritation of the epiglottis. He tested this view in the following case. A tuberculous man, aged thirty-eight years, underwent operation for an abscess in the neck. He was in deep narcosis and the incision had just been made when the respiration and heart's action almost simultaneously ceased. Attempts at resuscitation were made until the operators were nearly exhausted. Then, with the patient's head hanging over the edge of the table and his jaws separated by a gag, the index finger was moved to and fro over the epiglottis. After a short time he commenced to swallow and then to breathe, only to stop two minutes later. A second and a third "tickling" had the same effect. After the last the pulse and respiration remained normal.

## THE APOTHECARIES' SOCIETY AND THE PHYSICK GARDEN.

AT last it would seem after the many rumours which of late years have gained currency to the effect that the Society of Apothecaries were contemplating the sale of the old historic Physick Garden, botany being no longer a necessary part of the medical curriculum, that the garden is to practically pass from the control of its former custodians into the hands of the Charity Commissioners. This new committee of management will consist of 15 persons nominated by the London Parochial Charities' Trustees, the Treasury, the Royal Society, the Society of Apothecaries, the Pharmaceutical Society of Great Britain, and other public bodies, and the garden is to be maintained for promoting the study of botany with special regard to the requirements of (*a*) general education, (*b*) scientific instruction and research in systematical botany and vegetable physiology, and (*c*) instruction in general pharmacy as it concerns the culture of medicinal plants. The scheme also provides for the erection of new offices, lecture rooms,

[1] THE LANCET, Nov. 26th, 1898, p. 1414.

and a physiological laboratory, the appointments of a curator and a head gardener, the establishment of lectures upon botany, and the maintenance of collections of living plants for teaching purposes. The students and professorial staff of the Royal College of Science are to be accorded free admission into the garden, with use of the collections, lecture-rooms, and appliances, so long as the sum of £150, or more, shall be paid in that behalf to the Trustees of London Parochial Charities, as trustees of the remodelled charity. The scheme seems to us one which should be productive of much good, but as our lay contemporary the *Gardeners' Chronicle* points out—

"The medical profession till lately furnished the great majority of our botanists. They took service in India and the colonies, took part in exploring expeditions, and they contributed enormously to our knowledge of the botany of the globe. It is to be feared that the medical men of the future will not be so well equipped for this purpose as their predecessors were, and that systematic and economic botany will suffer proportionately."

We hope, however, that the medical profession will still maintain its interest in Sir Hans Sloane's old legacy and will also continue to receive the encomiums which it has earned in the past with regard to botanical research.

## THE METROPOLITAN HOSPITAL SUNDAY FUND.

ON Thursday last, Jan. 19th, a well-attended meeting of the Metropolitan Hospital Sunday Fund was held at the Mansion House when, in the absence of the Lord Mayor, the Earl of Stamford presided. Among those present were Mr. Astley Bloxam, F.R.C.S., Canon Rhodes Bristow, Mr. T. Bryant, F.R.C.S., Mr. A. L. Cohen, Sir Edmund Hay Currie, Mr. George Drummond, Dr. Glover, the Rev. C. H. Grundy, the Right Hon. William Lidderdale, Mr. T. Mackrell, Captain A. Palliser, and Mr. Wakley, F.R.C.S. The solicitor to the Fund, Mr. Cheston, stated with reference to the Vokins bequest that under Mr. William Vokins's will the Fund would benefit to the amount of some £49,000 Consols, the market price of which amounted at the present rate to about £55,000. Sir E. Hay Currie expressed the indebtedness of the Fund to Mr. Cheston for the valuable time he had devoted in connexion with this magnificent legacy and expressed the hope that Mrs. Vokins's death might long be deferred. Viscount Falkland was nominated a member of the council in the room of the late Earl of Strafford, but the deaths of Lord Charles Bruce and Dr. C. J. Hare and the resignation of Canon Eyton still leave vacancies on the council. The general purposes committee were re-elected, and the distribution committee for the year was constituted as follows:—The Lord Mayor, Sir Savile Crossley, Captain Cundy, Mr. Robert Grey, Mr. Herman Hoskier, Mr. Lidderdale, Mr. F. H. Norman, Dr. Sedgwick Saunders, Sir Sydney Waterlow, and Mr. Alfred Willett. Sir E. Hay Currie and Mr. R. B. Martin, M.P., were re-elected honorary secretaries, and Messrs. W. H. Pannell and Co. were appointed honorary auditors.

## THE LEBANON HOSPITAL FOR THE INSANE.

ABOUT two years ago Mr. Theophilus Waldmeier inaugurated a movement the object of which was to provide an institution for the reception of insane persons in Syria and Palestine. Up to that time no steps whatever had been taken for the proper care and treatment of these unfortunate persons, many of whom are left to wander about at will whilst others whose condition does not permit them to go free are removed to monasteries, caves, and churches, where they are chained up and badly fed. The chief form of insanity acknowledged in the East is demoniacal possession and therefore the proper persons to treat those afflicted are thought to be the priests who cause the sufferers to go through all sorts of tortures in order, as they say, to "drive the devil away." Mr. Waldmeier having had thirty-eight years' experience amongst the inhabitants of the East, mostly Syrians, is well acquainted with the condition of the people and he relates an instance in which an insane woman was at the request of her relatives treated by a Maronite priest who caused her to be placed on her head whilst two men held her body straight up and she was bound with ropes to a pillar. The priest read the formula of exorcism and burnt incense in a censer, at the same time commanding the demon to depart, and on the woman becoming excited he struck her on the face with a large silver cross until the blood flowed. Eventually she drowned herself in the sea. It was estimated that at least £10,000 would be required for the establishment of a proper asylum in Syria or Palestine and Mr. Waldmeier spent much time in travelling in various Continental countries, in Great Britain, and in America in order to arouse interest in the cause. When about £4500 were collected the committee at Beirut selected a very suitable site of about 30 acres at Asfuriyeh, 3¾ miles from Beirut. The four medical members of the committee, Mr. Brigstocke, Dr. Graham, Dr. Van Dyck, and Dr. Wortabet, have visited it together and have reported favourably upon it. The committee have issued their first annual report and they make an earnest appeal for subscriptions which may be sent either to Sir Richard Tangye, the treasurer, or to Mr. Francis C. Brading, the secretary, at the offices of the committee, 35, Queen Victoria-street, London, E.C. The chairman of the central committee is Dr. R. Percy Smith, late of Bethlem Royal Hospital.

## FRANKS v. HARGREAVES.

AN action was tried in the Queen's Bench Division before Mr. Justice Mathew in which a carpenter named Franks sued Dr. M. K. Hargreaves of Wimbledon for negligence. The plaintiff sustained a fracture of his right leg for which he was treated by the defendant with the result that five-eighths of an inch of shortening took place. The plaintiff alleged that the defendant had treated him as if one bone alone were broken, whereas two had been broken, and he therefore claimed compensation. The defendant said that he considered that only the tibia was broken. An x ray photograph, however, was put in showing a fracture of both tibia and fibula. One medical man said that in his opinion the treatment had been unsatisfactory, while others gave evidence to the contrary. Mr. Justice Mathew said that medical men were not responsible for errors of judgment if they honestly tried to do their best and the jury found for the defendant. This was an eminently sensible finding. "None of us," to quote the late Master of Trinity, "is infallible, not even the youngest," and medical men are no exception to this rule. Neither, as the householder knows, are carpenters. We do not deny that Dr. Hargreaves made a mistake in diagnosis, but the treatment for a fractured tibia is practically the same as that for a fracture of both bones of the leg. Therefore the defendant was not injured by the wrong diagnosis. A medical man's life is hard enough without, as Mr. Justice Mathew remarked, his being exposed to the prospect of an action at law for every mistake which he may make.

## DIPHTHERIA ANTITOXIN AS A PROPHYLACTIC.

IN *Treatment* (Jan. 12th) Dr. F. J. Allan, medical officer of health of the Strand District, narrates a personal experience which illustrates the immunising action of antitoxin in an institution accommodating 60 children varying in age from one and three-quarters to seventeen years. Most

of them slept in two large, airy dormitories and the class-rooms occupied during the day were also large rooms. Early in February, 1898, one of the children, during a visit to a friend, was exposed to infection from a case of diphtheria, and on returning home on the same day developed the disease herself and communicated it to the girls in the beds on each side of her own. These 3 cases were removed to a hospital and no further cases appeared until a few days after their return home in the beginning of March. By March 23rd 5 cases had occurred in the same dormitory and a bacteriological examination of the throats of the 3 former cases revealed the fact that 2 of them contained typical diphtheria bacilli. Up to April 29th several other children developed the clinical symptoms of diphtheria and several more had inflamed throats without membrane. On April 29th at Dr. Allan's suggestion a protective dose of antitoxin was given all round, and from that day, although the organisms persisted in the throats, there were no more cases of diphtheria or of sore-throat. Of the 60 children, 9 only never gave evidence of infection, 14 were in hospital, leaving 34 children at home in addition to the first 3 returned from hospital. As time went on the organisms in these 37 throats became less and less typical in form, and by June 15th all had disappeared. The immunising dose of antitoxin is from 100 to 300 units, according to age, and the immunity thus produced ordinarily lasts for a period of at least four weeks.

## AN IMPERIAL UNIVERSITY FOR INDIA.

WE are informed that owing to the munificent offer of a rich Parsee in Bombay there are great prospects of a scheme for the establishment of an Imperial University for India being completed at an early date. It is not proposed to run counter to any existing university, but the scheme is solely for the development of post-graduate education in the higher scientific and technical branches of learning. The medical and allied sciences are well provided for. Mr. Jamsetjee N. Tata offers a property representing a capital of over £200,000 and calculated to yield a yearly income of nearly £10,000 for the establishment of an Imperial University or a Research Institute in order to supply the want of a higher course of post-graduate instruction in scientific research for the best students of the existing universities. Mr. Tata seems to recognise that the industrial development of the country can be best furthered by training graduates in the higher branches of scientific research. A provincial committee has been formed which has drafted a Bill for the approval of the Government of India. It recently laid its plans before the new Viceroy with the hope of obtaining his support. In the scheme of studies there will be a threefold division—(1) scientific and technological; (2) medical and sanitary; and (3) educational and philosophical. The last of these branches has been included in the scheme in order to give the institution the character of a university. The new institution seeks to have the power of granting degrees and diplomas, and as it proposes to offer a strictly post-graduate course of studies it will not in any way interfere with the working of any of the existing universities. The scheme of the provisional committee involves an expenditure larger than is provided for by Mr. Tata's generous offer. A grant in aid therefore will be asked for from the Government of India. The support of native princes, of local governments, and of the public generally will also be sought. It is estimated that the initial expenditure required will amount to over £100,000 and the annual charge to about £20,000. On this basis, therefore, it is proposed to establish the several departments by degrees and to found subsequently special chairs through public and private munificence. There is already a large fund promised or collected for the Jubilee Health Institute initiated by his Highness the Maharajah of Dholpore and to this some of the native princes have made large contributions. The object of that institute is chiefly bacteriological research and it thus falls within the second of the three departments of studies included in the draft scheme. It is hoped, therefore, that the funds of the two institutes may be consolidated. Besides the Health Institute there are considerable funds raised in the Punjab and Hyderabad (Deccan) for research purposes and for the promotion of higher scientific education. A hope is expressed that those supporting this proposal may also join Mr. Tata's scheme. Altogether, it may be said that not only is the offer a grand one, but that the scheme is a grand one as well as being comprehensive. That the industries of the country will be developed there can be little doubt. Sufficient students for the various branches will also probably be forthcoming as time goes on, for it must be remembered that unless the country develops the capacity for absorbing their services there will be a limited demand for highly trained technical graduates and consequently there must in the long run result a falling off in the number of students. The above scheme of a separate university or institute open to the graduates of all existing universities and fully equipped with the necessary staff of teachers and appliances, such as laboratories, museums, libraries, &c., has already received the concurrence of Lord Sandhurst, the Governor of Bombay. Special legislation by the Supreme Council will have to be undertaken as the power of control and regulation is in the ultimate resort left to the Government of India. The institution will be imperial in character. The only doubt which suggests itself at first thought is that if the larger scheme absorbs the smaller institutes of bacteriological research and of public health or the proposed Pasteur Institute for India the objects of the latter undertakings may suffer in consequence. Popular misapprehension or popular feeling might make itself felt in a large institution governed to a certain extent by the popular will to the detriment of experimental science and bacteriological research. Before the Government of India gives its sanction to the scheme it is to be hoped that it will secure that the medical sciences shall not be hampered by any sentimental opposition to experimental investigations and that the object of the smaller institutions shall be thoroughly secured. At present, however, nothing is settled but we can at least recognise, as Lord Curzon of Kedleston said o receiving a deputation, the great generosity and public spirit which Mr. Tata has shown in contributing so magnificent a sum for the promotion of a great public purpose.

## THE PLAGUE IN HYDERABAD STATE: A REPORT BY LIEUTENANT-COLONEL LAWRIE, I.M.S.

AN account has reached us of experiments made on the manner in which the plague may be spread amongst the inhabitants of an infected district. The report is issued by Lieutenant-Colonel E. Lawrie, I.M.S., Residency Surgeon at Hyderabad, is addressed to Mahomed Azia Mirza, secretary to H. H. the Nizam's Government, Hyderabad, and is dated Sept. 12th, 1898. It contains a brief record of an investigation carried out in the temporary laboratory of the Hyderabad Medical School into the bacteriology of a virus found in the floor dust and scrapings of houses infected with plague in the Dominion of Hyderabad, and its substance has been made public in England by the accounts of Lieutenant-Colonel Lawrie's evidence before the Plague Commission.[1] To the report are appended the diary of the laboratory kept during the inquiry; a note by Surgeon-Captain Johnston, I.M.S.; and two memoranda by Mr. Stevens, Deputy Plague

[1] See THE LANCET, Jan. 14th, 1899, p. 121.

Commissioner, on the methods of detecting the infection of plague in soil and of destroying it by the kiln process of burning. A microbe closely resembling the plague microbe was discovered in the surface scrapings of the floors of all the infected houses throughout the villages in which cases of plague had occurred. At first the attempt was made to destroy the infection in the floors by burning grass or cowdung and kerosene oil on them, but this plan proved uncertain, inefficient, and dangerous, and ultimately the kiln method of burning the dug-up floors was decided upon. Experiments were also made by which it was desired to prove that the microbe found in the surface of the floors of houses infected with plague was the true plague bacillus. Lieutenant-Colonel Lawrie sums up the practical value of the knowledge that the plague virus lodges in and is disseminated through the floors of houses as follows: 1. The infection of plague can be tracked about by means of the microscope with as much certainty as if it were visible to the naked eye. 2. The value of disinfection can be measured by the same means. 3. The one disinfectant with which uniform results are obtained is fire. When a mud floor is reduced to ashes by the kiln process of burning no trace of the microbe can be discovered in the ashes. 4. By means of the microscope, fire, and boiling, plague can be stamped out with nearly mathematical certainty. 5. Floors and clothing contain the food by which the plague microbe is kept alive; their disinfection by fire and boiling destroys the food-supply of the infection.

## JOINT DISEASE IN INFANTS DUE TO OPHTHALMIA NEONATORUM.

IN a paper read before the Royal Medical and Chirurgical Society at the last meeting, held on Jan. 24th, Mr. Clement Lucas directed attention afresh to an original observation which he made in the year 1885, that the purulent ophthalmia of new-born infants was liable in certain instances to produce inflammations of joints similar to the gonorrhœal rheumatism of adults. Mr. Lucas, in the year alluded to, published 3 cases in support of his views and in his first communication, published on Feb. 28th, 1885, he made the following statement: "I am not aware that any connexion between ophthalmia neonatorum and synovitis has ever been observed or described; but there seems no just reason, if, as is generally supposed, the synovitis of gonorrhœa is the result of absorption of morbid products from the urethral mucous membrane, why the conjunctival mucous membrane should not offer an equally favourable absorbing surface. It is scarcely probable that the inflammation of these two joints could be referred to any other cause, and in my own mind there exists no doubt whatever that this is a case of gonorrhœal rheumatism consequent upon absorption from the conjunctival surface." Little attention appears to have been paid to the observation in this country, but abroad it was at once recognised as a form of joint inflammation in infants previously undescribed, and Mr. Lucas was able to found his recent paper upon 23 published cases. The correctness of the clinical observation has been submitted to bacteriological proof. Darier in 1889 found the gonococcus of Neisser in the secretion from the conjunctiva, and Deutschmann in 1890 by aspirating the inflamed knee of an infant three weeks old suffering from purulent ophthalmia was able to show the presence of the gonococcus in the secretion taken from the joint, thus completing the chain of evidence. Mr. Lucas shows that the date at which the joint inflammation most commonly appears is at the end of the second week or during the third week of the ophthalmia. The joints most liable to be affected are the knees and wrists, more especially the left; but any joint may be attacked and in some cases the tendon sheaths have shown signs of inflammation. Although the inflammation may be intense there is little tendency to suppuration and when it occurs Mr. Lucas asks the interesting question as to whether another microbe may not be associating its effects with the gonococcus, for in two cases in which suppuration took place the gonococcus was found to be associated in one instance with the staphylococcus and in another with the streptococcus. In reference to treatment Mr. Lucas suggests that as the infecting source is the conjunctiva the most important thing is rapidly to disinfect this mucous surface and with the cure of the ophthalmia the joint inflammation will generally rapidly subside.

## THE ADULTERATION OF FOOD.

THERE is distinct promise of the subject of food adulteration being seriously dealt with in the forthcoming session of Parliament. Such at least is the assurance contained in a speech delivered by the Minister of Agriculture, Mr. Walter Long, at a political meeting in Bath on Jan. 23rd. He said that he believed there was great truth in the statement that there was wholesale adulteration going on in the country and he was to be responsible during the session for the introduction of a Bill which he hoped would reduce adulteration. We trust that the terms of this Bill will be much in line with those of the excellent measure which was introduced in January, 1897, by Mr. Kearley and which was dealt with at some length in a leading article in THE LANCET of March 6th, 1897.

## THE DANGER OF LONG HOURS IN DRUGGISTS' SHOPS.

AN agitation has been set on foot in New York to reform the drug business in that city. An organisation entitled the Druggists' League for Shorter Hours of Labour has recently held a meeting at the Judson Memorial Church where the speakers sought to demonstrate that the public should be quite as interested in this matter as the members of the trade. It was even urged that the grand jury should institute an official inquiry concerning the abnormal conditions of a trade conducted to the "detriment of public morals and to the danger of public health." The grand jury has the power to make such representations to the Legislature as the facts may warrant. It is admitted that numerous errors have been made in the compounding of drugs. These blunders are attributed to the exhaustion consequent on prolonged hours of labour. The grievance is so far admitted that a Bill has been introduced in the Albany Legislature by which no one engaged in the making up of medical prescriptions shall be allowed to work more than ten hours on week days except Saturday, when he may work for twelve hours. On Sundays and legal holidays it is proposed to allow six hours' work. The druggists agree that when accidents have occurred and mistakes been committed they were almost always attributable to some overworked person who had perhaps been led to employ morphine, cocaine, and other drugs to stimulate his flagging energies. During the four years ending July, 1898, 13 dispensing assistants in drug stores committed suicide and 7 others attempted but failed to kill themselves. These suicides were the consequence of the physical conditions induced by the taking of drugs to resist the effects of fatigue. In 1897 there were 13 deaths reported as due to the mistakes of druggists and it is probable that many more such deaths have been hushed up. The druggists sometimes pay very large sums to their customers when through some blunder a person is poisoned and thus the cases do not always come before the courts. In the face

of these statements it does seem as if the Assistant Druggists' League have a good case. Overwork is always injurious to the person who suffers from the strain, but sometimes it is also dangerous to the public, as in the case of engine-drivers and railway signalmen. On their alertness the safety of the travelling public depends. The same may be said with regard to the dispensers of medicines. The slightest carelessness or inattention may result in fatal consequences and it certainly is to the interest of the public to see that the dispensers of medicaments enjoy sufficient leisure and rest.

## TETANUS IN OBSTETRIC CLINICS.

ACCORDING to the *Allgemeine Medicinische Central-Zeitung* the Obstetric and Gynæcological Clinic attached to the Bohemian Medical Faculty of the University of Prague has for some time past been visited by an epidemic of tetanus which has proved fatal to many of the patients and which the most stringent hygienic measures, including the use of antitoxin, have failed to stamp out. Indeed, the epidemic has recently spread to two other obstetric institutions in the city—viz., those connected with the Midwives School and the German University Clinic.

## THE OPERATIONS IN UGANDA.

IN the list of appointments and promotions just published in the *London Gazette* in recognition of the services of officers during the recent operations in Uganda we are very glad to notice the names of the following medical officers upon whom the Queen has been graciously pleased to confer the Distinguished Service Order: Captain G. S. McLoughlin, M.B. Durh., and Captain J. D. Ferguson, both of the Royal Army Medical Corps. We heartily congratulate these officers on the distinction which they have won.

## ACCESSORY THYROID BODIES AT THE BASE OF THE TONGUE.

AT a recent meeting of the Pathological Society of Philadelphia Dr. H. L. Williams presented two cases of this rare anomaly. A woman, aged fifty years, complained of a growth at the base of the tongue which she had had for eight or ten years without much inconvenience but which had begun to enlarge and to produce dyspnœa and difficulty of speech. It lay in the median line just above the epiglottis. The growth was about 1¼ in. in width and 1 in. in thickness, oval, rounded, and smooth on the surface, except at the top where it was superficially ulcerated and covered with a whitish membrane. A small portion was removed and showed microscopically in addition to the signs of inflammation typical thyroid structure containing colloid material. In the second case the patient was a young women, aged sixteen years, who had a growth at the base of the tongue for five years which had recently enlarged causing some dysphagia. It was situated in the same position as the growth seen in the first case. On removal by the wire cautery it measured 1⅛ in. in length, 1 in. in width, and ¾ in. in thickness. It was soft and spongy in appearance, surrounded by a fibrous capsule, and showed a delicate reticulum of fine filaments extending through it in all directions. The surface was reddish, in some areas whitish, glistening, and resembled the thyroid gland. Microscopically a meshwork of acini separated by a delicate reticulum of connective tissue was seen. The acini were almost invariably dilated and cystic and filled with colloid material. The diagnosis of cystic thyroid tissue undergoing colloid degeneration was established. Thyroid tissue at the base of the tongue is readily explained embryologically. The middle thryoid area first appears as a ventral outgrowth from the entodermic lining of the primitive pharynx at a position corresponding to the second visceral arch. This outgrowth rapidly elongates and generally loses its attachment with the epithelium of the pharynx, the connexion being represented by a fibrous band (thyroglossal duct) which emerges from the tongue at the foramen cæcum. When thyroid tissue is found in this locality it is formed from embryological remnants at the upper extremity of the thyroglossal duct.

## SIR WILLIAM CROOKES AND MICROBES IN THAMES FLOOD WATER.

A DIAGRAM exhibited by Sir William Crookes at the forty-fourth meeting of Lord Llandaff's Water Commission appears to have misled or perplexed the Royal Commissioners. We are aware of the difficulty sometimes experienced by men of science in explaining technical details in such a way as to be comprehensible to lay minds and we should therefore be glad to publish Sir William Crookes's diagram with any explanation of it which he may be pleased to give should he wish to have the matter further elucidated.

## MEDICAL GRADUATES' COLLEGE AND POLYCLINIC.

THE annual subscribers to the College now number, we are informed, 320 and applications for enrolment are coming in. The life governors, donors, and guarantors already constitute a considerable body. The organisation of the College has been delayed from various causes, but we understand that it is being pushed forward as rapidly as possible and that no pains will be spared to supply the varied needs of the practitioner. The authorities state that as the work will be continuous throughout the year and the teaching thoroughly practical medical men will be able at any season to perfect their technical skill and to enlarge their professional knowledge. The medical superintendent will be happy to receive any medical visitor to the College (22, Chenies-street, W.C.) who may desire further information. The first general meeting of the governors was held on Thursday evening last at 5 P.M.

## THE POSITION OF NURSES IN POOR-LAW INFIRMARIES.

AT the meeting of the London and District Poor-law Officers' Association held at Hackney on Jan. 20th Miss E. Julian, the Matron of the Croydon Infirmary, read a paper on the Need of Nursing Reform in Workhouse Infirmaries. It is well known that since the Order of the Local Government Board prohibiting pauper nursing in infirmaries the Poor-law authorities have been put to great straits to obtain duly trained and qualified nurses. Miss Julian asks why should this be when everyone knows that there are plenty of trained nurses in want of work. She finds her answer, to use her own words, in "loss of professional status, lack of adequate assistance, the monotonous home life, and uncongenial surroundings." It must be remembered, too, Miss Julian goes on to say, that there is a popular idea to the effect that a workhouse-nurse is a woman not sufficiently refined to be employed in a hospital and this idea is not confined to laymen alone. The superintendent nurse has but inadequate assistance and has no voice in the selection of her assistants and also she is practically cut off from society. Compare her position, says Miss Julian, with that of the matron of a provincial hospital. Two remedies have been suggested for this unhappy state of matters—one, that the Poor-law nursing service should be a department of the State as are the Naval, Military, and Indian Nursing Services; the other, that the large Poor-law infirmaries should train nurses for the smaller. This latter suggestion was formulated by Miss Gibson, the matron of the Birmingham Workhouse Infirmary and a paper dealing

with the matter from this point of view was read by Miss Wilkie, superintendent of the Halifax Infirmary at the Yorkshire Poor-law Conference held in November, 1898. Miss Wilkie proposed that a nurse should have no salary during the first two years of her training, which is to last four years, but only board, lodging, and washing; and scholarships might be established. Miss Julian apparently advocates a fusion of both schemes, only she thinks that possibly the best thing would be a departmental inquiry into the whole question. It seems to us that most of the difficulties arise from the unfortunate position which the workhouse holds in our social economy. Instead of being, as it ought to be, a place where the really deserving poor can end their days in comfort—a resthouse in short and not a workhouse—it has come to be looked upon as a place of disgrace and discomfort. And this idea is by no means an unreasonable one. Until some method is devised for separating the really deserving poor from the idle, the incompetent, and the loafer, so long will the provision made by the Poor-laws for the poor be considered a thing to be only accepted in the very last emergency. We are far from saying that the tramp, the idler, and the drunkard should be allowed to starve, but there should be some definite line of demarcation between the sheep and the goats, and if this consummation were to be brought about the really deserving poor could be housed in some institution of the bede-house type and the undeserving in a place where they might expiate their sins of omission or commission while those who looked after them would have the same status as the present prison officials, one far superior to that of the workhouse official as constituted nowadays.

## HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.

THE winter session of afternoon lectures and demonstrations by the staff of the hospital will commence on Wednesday next, Feb. 1st. The opening lecture of the session will be delivered by Sir R. Douglas Powell, Bart., M.D. Lond., on that day, at 4 P.M., the subject being "Mitral Stenosis." The lectures are free to all qualified medical practitioners and to students attending the practice of the hospital and every care is taken that an exactly typical set of cases shall be at hand for clinical demonstration. We have sometimes wondered whether medical men quite appreciate the opportunities which are thus afforded them of seeing in the brief space of an hour or so a series of examples of thoracic conditions most difficult occasionally to diagnose and of hearing the signs and symptoms expounded at the same time.

## "HERPETIC FEVER."

AT the meeting of the Société Médicale des Hôpitaux on Dec. 16th, 1898, M. L. Rénon related the following curious case. A girl, aged eight years, was suddenly seized with headache, nausea, and cough. On the following day the temperature was 100·4° F. and the pulse was 120; there were some white points on the right tonsil and the pharynx was a little reddened. There were bronchitis and a distinct zone of congestion at the base of each lung. The child complained of intense supraorbital headache. Influenza was diagnosed. On the third day there were numerous herpetic vesicles around the mouth and on the right cheek; there were also some on the point of the tongue, the soft palate, and the right tonsil. The general condition was better, the temperature had fallen to 98·6°, and the signs of bronchitis had disappeared. It was evident that the disease was not influenza but an infection which had attacked the respiratory and digestive organs and terminated in an outbreak of herpes. Herpetic fever was diagnosed. On the fourth day the general condition was very good except for some nausea; fresh vesicles were seen on the left cheek, below the eyebrows, in the mastoid regions, and on the left index finger. The latter consisted of a group of three vesicles on the dorsal aspect of the last phalanx immediately below the nail. This group was very painful. There was no albuminuria. On the sixth day there were two new vesicles on the left cheek and three on the right eyelid. The other vesicles were completely dried up except those on the index finger which were very large and very painful. Recovery was not complete until the twenty-fourth day. The interest of this case lies in the localisation and persistence for twenty-one days of herpetic vesicles on the left index finger. Herpes of the extremities is exceptional. Recently[1] MM. Kahn and Apert have observed it on the back of the hands and wrists, but then the disease terminated in five days.

## THE QUALIFICATIONS OF THE PUBLIC ANALYST.

IT is quite time that the qualifications of the analyst appointed under the Food and Drugs Act should be more clearly defined. At present it is vaguely required of him according to the tenth clause of the Act that he shall be a person possessing "competent knowledge, skill, and experience" as an analyst of all articles of food and drugs. So far there is no diploma or degree officially recognised by which to an extent the competency of the candidate could be adjudged and thus those whose business it is to appoint the public analyst have no standard which might serve as a guide in this matter. It is anomalous, we think, that in one of the most important branches of home administration there should be an office requiring skilled work which may be filled by a person possessing neither diploma nor degree. The Act states that he must be competent, and our local authorities have little means of being assured upon this important point. We have already expressed an opinion that the best test of a person's competency for the post of public analyst is the thoroughly practical examination held by the Institute of Chemistry of Great Britain and Ireland. The duties of the office essentially require a person of practical attainments in regard to the analysis of food, water, and drugs, and the Fellowship of the Institute of Chemistry is granted to those persons who have successfully passed the examination which is almost exclusively practical, involving nearly a week's laboratory work relating to the subjects indicated. The science degrees of our universities obviously can count for little, since a man may possess a science degree without the slightest conception of the practical analysis and composition of food and drugs. We think the matter calls urgently for the attention of the Local Government Board. Their decision should remove considerable ignorance upon this subject and tend to secure the appointment of a body of competent persons whose important duty it is to protect the public against fraud and largely also to watch over the hygienic interests of the community.

## THE POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

AT a meeting of the council of the above association held at their rooms, 9, Copthall-avenue, E.C., on Jan. 17th, the subject of a central fund for the payment of Poor-law officers' pensions came under discussion. It was resolved that the present system of dealing with the vexed question of superannuation expenses was likely to lead to serious grievances; that it would inevitably result in preventing the increase of Poor-law officers' salaries under any ordinary circumstances; that it would hinder any man

[1] Bulletin Médical, April 10th, 1898, p. 333.

of advanced age, however competent, from obtaining an appointment in the service; and that it would be fatal to the chance of any Poor-law officer obtaining another post after having once lost his office. All this would be avoided, it was thought, by the creation of a central or common fund out of the contributions deducted under the present Act from the salaries of Poor-law officers. There is a good deal to be said in support of the contention of the officials in question. It is, however, a question which affects all branches of the service, and it would be advisable that some common action should be taken in the matter either in the shape of a memorial to the Local Government Board or that the question should be raised in Parliament. It is perhaps only natural that matters which concern medical men personally should occupy a prominent place at such meetings, but a subject which much affects Poor-law medical officers (especially those attached to workhouses and infirmaries) at the present moment is the great difficulty in obtaining properly qualified and adequately trained nurses for these institutions. Possibly it will occupy the attention of this useful association on some future occasion.

## SPEED OF SOUND.

THE last determination of the speed of sound has been made by Mr. A. Leduc, who finds that the rapidity of propagation of sound waves through dry air at 0° C. = 22° F. is 1088·58 ft. per second (*Comptes Rendus*, Dec. 26th, 1898).

THE adjudicators of the Swiney prize at the meeting held in the rooms of the Society of Arts on Jan. 20th awarded the prize for the present year to Dr. J. Dixon Mann, F.R.C.P.Lond., Professor of Forensic Medicine and Toxicology in Owens College, Manchester, for his book on "Forensic Medicine and Toxicology." The prize, in accordance with the will of the testator, is awarded on every fifth aniversary of his death to the author of the best published work on jurisprudence. The prize consists of a silver goblet of the value of £100, with money to the same amount.

AN "Irish Club" has been formed with the object of providing a convenient meeting place in London, affording opportunity for friendly intercourse between Irishmen, visiting the metropolis from Ireland itself, from the provinces, and from abroad. Those of our readers who are qualified by birth or nationality for membership may apply to the honorary secretaries at the Cockburn Hotel, 13, Henrietta-street, Strand, London, W.C. The Irish Club is absolutely non-political and non-sectarian.

SIR WILLIAM MCGREGOR, K.C.M.G., has accepted the post of Governor of Lagos. Sir William McGregor is M.D. of the University of Aberdeen and has held various medical appointments in Scotland and the colonies. In 1875 he became chief medical officer of Fiji and in 1877 was appointed Receiver-General of that colony. In 1888 he was made the first Administrator of British New Guinea and in 1895 Lieutenant-Governor of the colony, a post he has held up to the present time.

THE annual dinner of the West London Medico-Chirurgical Society will be held on Wednesday, Feb. 8th, at the Trocadero Restaurant, Piccadilly, W., at 7 for 7.30 P.M. The President, Dr. S. D. Clippingdale, will preside. Professor William Osler, F.R.S., of Baltimore, who has accepted the office of Cavendish Lecturer for 1899 and who was to have been the chief guest at the annual dinner, will be unable to be present.

DR. SIDNEY MARTIN will lecture on Monday evening next, Jan. 30th, at 8.30 P.M., at the rooms of the Royal Medical and Chirurgical Society, 20, Hanover-square, on Tuberculosis. The lecture is the first of three to be delivered under the auspices of the Royal Institute of Public Health, and all interested are invited to attend.

A NEW periodical, to be entitled *International Archives of Leprosy*, is projected. Communications should be made in English, French, or German; if in any other language a summary should be given in one or other of the languages mentioned. Those willing to support this scheme are requested to communicate with Professor Albert Neisser, Breslau, Museumstrasse 11.

A SESSIONAL meeting of the Sanitary Institute will be held at the Parkes Museum on Wednesday, Feb. 8th, at 8 P.M., when a discussion will be opened on the Supply of Water to London by the Welsh Scheme, by Mr. R. E. Middleton, M.I.C.E., M.I.M.E. Tickets for the admission of visitors may be had on application.

THIS (Saturday) afternoon Dr. Sidney Coupland will be presented with a testimonial which has been subscribed for by members of the staff of the Middlesex Hospital and old students of the school. The presentation will take place in the lecture hall at the Medical School at 4.30 P.M.

THE annual meeting of the After-care Association for Poor Persons discharged from Asylums for the Insane will be held at the house of Sir Samuel Wilks, Bart., Grosvenor-street, W., on Monday, Feb. 6th, 1899, at 3 P.M. Sir Samuel Wilks will occupy the chair.

# IRISH MEDICAL ASSOCIATION.

### REPORT ON THE GRIEVANCES OF THE IRISH POOR-LAW MEDICAL SERVICE.

WE speak in another column of some features of this report which reveals a very sad state of matters. With reference to the abuse of tickets the report says:—

> Tickets are used generally without inquiry, often without necessity, and always without responsibility. Practically they are given to every applicant. Poor-law guardians and other members of dispensary committees have issued tickets for attendance on their own families. Thriving shopkeepers, farmers of a hundred acres of land, persons with many hundreds of pounds on deposit in bank, earners of incomes up to £3 a week, well-to-do pensioners, and such-like people get visiting tickets without question and present them without shame.

Following this are 17 authenticated examples of abuse, of which, perhaps, the most flagrant is No. 17, which is as follows:—

> 17. Brought on a red ticket to meet Drs. —— and ——, who were privately attending the sick person.

A red ticket be it noted implies that attendance must be given at once. For a patient to employ two "pay doctors," and to summon his "dispensary doctor" to consult with them is surely the height of impudence. The report proceeds:—

> Among the recipients of dispensary relief there is a large class able to pay moderate fees in proportion to their means who are not only permitted but are even encouraged to pauperise themselves in the matter of medical attendance. They may be counted probably by the 100,000. The Local Government Board should be able to provide a remedy that would prevent this imposture and at the same time protect the rights of the sick poor. Visiting tickets are issued improperly for trifling ailments that should be treated in the dispensary. Sometimes tickets are obtained for purposes outside the scope of the Medical Charities Act. Mothers frequently thus relieve themselves of the duty of bringing their children for inspection after vaccination. Tickets are issued to obtain School Board or other certificates. Agents for small insurances cause them to be used for the protection of their companies. But worse than this is the abuse of issuing visiting tickets without necessity at irregular and unreasonable hours. By issuing the tickets only at timely hours (except in case of necessity) the sick would be attended more promptly and satisfactorily and the doctor would be relieved of much useless and avoidable drudgery. Proper regulations, of course, are necessary, but regulations alone will fail as they have failed in the past.

For instance, the Local Government Board says that

persons empowered to issue tickets under the Medical Charities Act cannot delegate the power to others. This regulation is ignored. In one district during the year 1898 1434 tickets were registered. The number issued by members of the committee themselves was 58.

As to travelling expenses :—

For £108 a year the dispensary doctor is obliged to attend the sick poor among a population averaging 6557 and to travel over an area of 44 square miles. The roads are not made in straight lines and so the area gives no idea of the length of the journeys. In many places the attendance at the dispensary stations alone forms a serious item of expense. The dispensary doctor has himself to pay the travelling expenses which he must necessarily incur in discharging his public duty. This anomaly is the more grievous and unjust because these expenses, which ought to be a public charge, are paid for out of a salary that does not afford even the necessaries of life. It should be strongly urged on the Local Government Board that the want of allowance for the cost of travelling on dispensary duty in rural districts is a grievous injustice to the sick poor as well as to the doctor.

Registration, vaccination, and sanitation are extras, but are very poorly paid and oftentimes car-hire eats up the remuneration. With regard to holidays the report speaks very strongly :—

There is no service in these countries where the duties of the officers are so laborious and so unceasing as in the Irish dispensary service. There is none so poorly paid. The work of a dispensary doctor is always responsible ; it is often laborious even to drudgery ; at times it is full of danger to health and life and, worst of all, it is incessant. Anyone of these conditions would entitle him to some period of certain rest and change. But when all these conditions are combined an annual holiday becomes absolutely imperative. "Nature must obey necessity." The dispensary doctor must be prepared for official duty every hour of the day and of the night, on Sundays as on week-days, on holidays as on other days, all the year round. There is no parallel for such a constant strain of continuous duty. The Local Government Board should exercise their power under Secs. 8 and 12 of 14 and 15 Vic. Cap. 68, to secure for all Poor-law medical officers a fixed annual holiday, with paid substitute, as an absolute necessity for the efficient performance of their duty.

The report points out that Civil Servants get six weeks' holiday, and we might add that even bank clerks get a month. A holiday for hard-working people is an essential.

The report goes on to cite cases of nine dispensary medical officers dying at an average age of thirty-seven years. It then considers the case of old men of even ninety years of age dying in harness because the committees would not grant them a pension. The report makes many recommendations, all of which advocate the Local Government Board as the beneficent power. This, we take it, will not make the recommendations of the Association popular with the various dispensary committees.

## THE ROYAL COMMISSION ON THE METROPOLITAN WATER-SUPPLY.

THE forty-fourth sitting of the Royal Commissioners was held at the Guildhall, Westminster, on Jan. 17th. The Commissioners present were Lord Llandaff (the chairman), the Right Hon. J. W. Mellor, Sir John Dorington, Sir George Barclay Bruce, Mr. de Bock Porter, Mr. Robert Lewis, and Major-General Scott. The witnesses examined were Sir William Crookes and Mr. James Dewar, who are employed by some of the metropolitan water companies, and Sir Edward Frankland, K.C.B., the water analyst to the Local Government Board.

At the commencement of the proceedings Mr. PEMBER, Q.C., gave a disquisition on the bearing and consequences of the legislation of 1852 and 1871 with regard to the constant supply of water to the metropolitan area and in the course of his remarks he quoted freely from the sections of those Acts which related to the subject.

Sir WILLIAM CROOKES, in reply to the CHAIRMAN, said that he had been concerned in the systematic chemical examination of London water since the year 1881. He was paid by some of the metropolitan water companies but he regarded himself as acting in the interests of the water consumers. The witness put in some diagrams.

The CHAIRMAN, referring to one of the diagrams, asked the witness whether he wished them "to draw the inference that the best thing is to draw Thames water when it is in flood so as to get only a few microbes."

Mr. MELLOR said, "That is what this plan would show," and the witness said, "All the results of our experience show that." In answer to a further question from Sir G. BRUCE as to whether there were fewer microbes in flood-water the witness replied that there were.

In answer to Sir GEORGE BRUCE the witness said that the rain washed down a certain quantity of microbes from the land, but that the amount of impurity which the rain brought into the river was little in comparison with the enormous dilution it produced.

Mr. PEMBER, referring to the fact that the diagram showed that the number of microbes increased as the flow over Teddington Weir became smaller, suggested that this was due to the greater vitalising power of the sunshine over shallow water and to the generative power of the sun. The witness, however, said that sunlight had a deleterious effect upon microbes.

Sir GEORGE BRUCE said that the number of microbes was in inverse proportion to the amount of water. Later in his examination the witness said that when there was a small flow over Teddington Weir there were very few microbes.

In answer to Major-General SCOTT the witness said that the only advantage of allowing water to subside in a reservoir was that the deposit which took place would save the filters, for the filters would become foul more rapidly with turbid water than with clear water and if turbid water were put straight on the filters a larger number of filters would be required to give the same result. The witness admitted that it was not desirable if it could be avoided to take water out of the river in a turbid condition and to put it directly on the filter beds. He was not aware that in the scheme for the Staines reservoirs as a general rule the water was to be taken out of the river and put directly on to the filters.

Major-General SCOTT pointed out that this was the fact and asked whether there ought not to be some limit to the character of the water which was taken and sent down to the filters, and whether it would not affect the quality of the filtered water, taking into account the fact that filters would more rapidly become foul when turbid water was used. The witness replied that there were rules and a proper amount of supervision was exercised over the water companies and that the rate of filtration was already regulated by Act of Parliament and was 2½ gallons per square foot per hour.

Major-General SCOTT pointed out that no such statutory regulation as the witness suggested was in force. The witness said that he thought there was such a statutory obligation.

In answer to Major-General SCOTT the witness said that any quantity of water could be dealt with if there were a sufficient number of filters. He would not admit, however, that if flood water were taken the number of filters necessary would be so enormous that it would be a most uneconomical thing to use water straight from the river.

In answer to the CHAIRMAN the witness said that he did not think that any restriction in taking flood water was necessary, but he admitted that in Thames water there were more microbes in flood than when the river was not in flood.

In answer to Sir GEORGE BRUCE the witness said that during the period of flood there were more microbes per cubic centimetre.

In answer to the CHAIRMAN the witness said that it did not matter if there were three or four hundred microbes per cubic centimetre if they were harmless ones. He thought that the whole question of microbes was more a sentimental than a practical question.

Sir GEORGE BRUCE asked the witness whether unfiltered Thames water could be drunk without doing any harm. The witness replied : "I do not think one would take harm," and he added that he would not object to drink it himself.

Mr. JAMES DEWAR, in answer to the CHAIRMAN, said that the number of microbes per cubic centimetre in Thames water was increased during times of flood. After every shower of rain in river water there was always a large increase in the number of microbes present. The amount of microbes in the filtered water depended entirely upon the efficiency of filtration.

In answer to Sir JOHN DORINGTON the witness said that there was no relation between the condition of the river and the bacteriological condition of filtered water.

The CHAIRMAN remarked that in that case the diagram which had been shown to them was wholly misleading. The witness would not agree with this criticism and said that in every case the number of microbes present depended on the condition of the filters.

The CHAIRMAN insisted that in so far as the diagram which had been shown to them conveyed any results it conveyed misleading results.

Major-General SCOTT asked whether there was not this general coincidence—that water containing a greater amount of sediment would contain a greater amount of bacteria, and that if flood water contained a greater number of bacteria than water which was not flood water and flood water contained a greater amount of sediment than water which was not flood water, did it not follow that water which contained a great number of bacteria would generally contain a large amount of sediment? The witness replied that that was not so.

Major-General SCOTT asked the witness to explain. The witness replied that suspended matter was not necessarily objectionable but that, on the contrary, it was advantageous in getting rid of bacteria. Suspended matter did good. The settlement of water containing solid matter in suspension was as effective in getting rid of bacteria as filtration.

Major-General SCOTT said that that was not the point on which he wished for information, but he wanted to know whether when the Thames was in flood it deposited a considerable amount of sediment, and the witness admitted that this was the case.

Major-General SCOTT asked if the Thames when in flood did not contain a considerable amount of bacteria, and the witness replied that that was so.

Major-General SCOTT then asked whether it was not a fact that when the river contained a considerable amount of sediment it also generally contained a considerable number of bacteria. The witness then admitted that the facts were as Major-General Scott had suggested.

Major-General SCOTT asked if in the case of water containing a large amount of sediment the filters would not become more quickly choked. The witness admitted that this was so, but he would not admit that it therefore followed that if such water was taken a larger filtration area would be necessary. He admitted, however, that filters would have to be more frequently washed and Major-General SCOTT pointed out that whilst the filters were being cleansed they could not be used.

In answer to the CHAIRMAN the witness said that under the present system of filtration the number of microbes was generally reduced by the metropolitan companies to less than 100 bacteria per cubic centimetre.

The CHAIRMAN asked if there were 20,000 whether they would do any harm. The witness replied that it would depend upon their character. He had never found any morbific bacteria in the water.

The CHAIRMAN asked why if the bacteria were not harmful it mattered if there were 100 or 200 per cubic centimetre and suggested that from the witness's evidence it appeared that all this fuss about bacteria was mere idle talk.

Sir EDWARD FRANKLAND, K.C.B., said that the Local Government Board had very little legal power over the metropolitan water companies and that so far as he knew the Local Government Board had never attempted to place any restraint upon the companies with regard to the taking of water during flood; they had, indeed, no legal right to do so.

In answer to Major-General SCOTT the witness said that there was no doubt that storage enormously decreased the number of microbes—there was no doubt whatever upon that point.

The CHAIRMAN asked whether the character of these microbes was fully established, whether innocent microbes might become mischievous, whether they might "go mad as it were." The witness replied that microbes were not subject to such changes. The witness said that he thought that every metropolitan company ought to have a sufficient storage capacity for thirty days' supply.

In answer to the CHAIRMAN the witness said that he found that as a rule when the Thames was highly charged with microbes the number of them in the filtered water supplied by the companies was larger than it was when the Thames water was purer and freer from microbes.

The CHAIRMAN handed to the witness the diagram which had been put in by Sir William Crookes and said that it had conveyed to his mind the impression that the average number of microbes in filtered water varied in inverse ratio to the height of the river. The witness said that that observation was not in accordance with the results which he had obtained.

In answer to Major-General SCOTT the witness said that as a rule he had found that the number of microbes was greater in flood water than it was when the river was running at the ordinary level, and he stated that as a general fact in a filtrate of flood water there were more microbes as a rule than there were in a filtrate of water that was not flood water.

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The forty-fifth sitting of the Royal Commissioners was held at the Guildhall, Westminster, on Jan. 23rd. The Commissioners present were the Chairman (Lord Llandaff), Sir John Dorington, Mr. de Bock Porter, Mr. Robert Lewis, Mr. Cripps, Q.C., and Major-General Scott.

At the commencement of the sitting Mr. BALFOUR BROWNE on behalf of the London County Council said that that body would be willing that the witnesses who had appeared before the Commission should assist Colonel Rathborne in the inquiry which he was undertaking and that Sir Alexander Binnie had already been in communication with the new Assistant Commissioner.

Mr. CHARLES EDWARD GROVES, F.R.S., the chemist employed by the Thames Conservancy, gave evidence with regard to the chemical condition of the Thames water. He gave it as his opinion that flood water could quite safely be taken by the metropolitan water companies from the first hour of flood and during the whole period of flood.

The witness said that there had been a great improvement in the water of the Thames since the Thames Conservancy Act of 1894 had been put into force. Since that date the amount of pollution had been diminished to the extent of about two-thirds. Pollution resulted from the effluents from the sewage farms which entered the river, and if the entrance of sewage effluents could be entirely prevented greater purity would necessarily be secured.

In answer to the CHAIRMAN the witness said that when turbid water was allowed to settle slowly the solid matter carried down a great quantity of the organic matter which was present in the water. He thought the fear that the Thames was excessively polluted by organic matter during periods of flood was groundless. In his experience a comparatively slight flood after excessive and continued drought raised the amount of organic matter present by less than one-half. When the river was in high flood and overflowed the banks the water became very turbid, but the amount of organic matter suspended and dissolved in it did not become very great and the excess could be removed by storage and filtration. The purification of sewage ought always to be effected by passing it over land, because in that way pathogenic organisms were destroyed.

In answer to Mr. BALFOUR BROWNE the witness said that he was not aware that Dr. Klein had proved the presence of pathogenic organisms in water supplied to Londoners.

Mr. HENRY CARRINGTON BOWLES, Governor of the New River Company, in answer to the Chairman said that prior to the year 1852 the company had sold their water to their customers at a charge arranged in each case by agreement. The company were under no restriction as to the charges which they were entitled to levy nor were they obliged to give a supply of water. Under the terms of the New River Act of 1852 the company were compelled to give a supply at a statutory scale of charges, but there was no statutory limit as to the amount of profits which the company might divide. It was the wish of the company to have the most friendly relations with their customers. As a matter of fact the company did not charge their customers the full statutory price. In the case of the City of London the charges were, roughly speaking, two-thirds only of the amount which they had a right to receive. If the undertaking of the New River Company were bought by the London County Council it would be injurious to the City of London.

The CHAIRMAN asked the witness why they did not "bleed the City properly." It was suggested that they might charge as much as they were entitled to in the City and make large reductions to their poorer customers in less prosperous parts of the metropolis. The witness said that he had no doubt that in the future as in the past the company would be able to perform to the utmost their obligations to the public. They had always been prepared for any possible increase in the consumption of water and their policy had been to provide for it in advance. With their existing arrangements and with those which they had in contemplation provision had already been made which would enable them to have a sufficient supply of water to carry them on until the year 1931. The witness said that in

his opinion there was ample control over the affairs of the company. Their accounts were examined by the auditor appointed by the Local Government Board; the filtration of their water was watched and reported on by the water examiner to the Local Government Board, and he would have no objection whatever to the water examiner having a statutory right to enter their premises at all times. The witness said that in his opinion the undertakings of the metropolitan water companies were too great to be under one management unless a separate Government department were formed for that purpose.

The CHAIRMAN remarked that Government departments were not always considered to be models of efficient supervision.

The forty-sixth meeting of the Royal Commissioners was held at the Guildhall, Westminster, on Jan. 24th, when the examination of Mr. Bowles was completed and Mr. Searle, the secretary, and Mr. Francis, the engineer to the New River Company, were examined by the Commissioners. The latter was cross-examined at some length by Lord Robert Cecil on behalf of the Hertfordshire County Council.

## THE INFLUENCE OF SCHOOLS IN ACCENTUATING THE SPREAD OF CERTAIN INFECTIOUS DISEASES.

II.

IN our last article in THE LANCET of Jan. 21st we briefly traced the growth of knowledge as to the influence of schools in connexion with the diffusion of infectious disease, and we drew attention to the valuable and instructive investigations of Mr. Shirley Murphy with regard to the elementary schools of the metropolis. If, however, schools have had a marked effect in accentuating the incidence of diphtheria and other infectious diseases on certain age groups in London, it is only reasonable to expect that a somewhat similar influence should, if carefully looked for, be detectable elsewhere. But at the threshold of an inquiry into this aspect of the question we are met with the difficulty that in but few places has such care been exercised to discover the facts as has been taken by Mr. Murphy in connexion with the London figures; indeed, some investigators have by a somewhat imperfect conception of the real issues at stake needlessly complicated matters.

If, however, the mortality figures for England and Wales, excluding London, are studied as a whole it is found that they manifest similar changes to those for London taken either alone or in conjunction with those for England and Wales, and as Mr. Murphy points out in the report[1] with which we are now mainly dealing, there has been in each of the populations above referred to a notable increase of relative incidences of diphtheria mortality since 1861–70 upon children at school age, and "so far as the figures antecedent to the period 1861–70 may be trusted, there is observable difference in the behaviour of the figures in the period before and after that period." Mr. Murphy discusses the several factors which may be considered to have had to do with this altered age incidence, such, for instance, as altered nomenclature, natural variations, and varying social conditions of the community, and after fully dealing with each of these questions he arrives at the conclusion that the aggregation of children in schools is the best explanation of the phenomena observed.

When, too, the available notification figures for certain large towns other than London are separately examined as regards diphtheria incidences on age groups Mr. Murphy finds, contrary to the conclusions arrived at by Dr. W. R. Smith, the medical officer of the London School Board, who it appears examined only the "all ages" figures for some of these towns, that there are distinct indications of a fall in the number of notifications during the summer holiday period in the case of Bradford, Birmingham, Nottingham, West Ham, Salford, Sheffield, Bristol, and Manchester. These results have been brought out by grouping the cases in respect to age for three equal periods—i.e., before holiday influence, during holiday influence, and subsequently to holiday influence. So, too, in reference to the figures for Berlin, Mr. Murphy, without of course attaching any great importance to "all ages" figures, shows nevertheless that there are even here indications of school influence, and this in spite of the fact that Dr. Smith, who had regard to the deaths alone, failed to detect any such influence.

There is, however, another side from which this question of school influence may be approached, and that is by a consideration of the operations of each separate school in any given district. It is perfectly obvious to the epidemiologist that all schools are not always operating in the diffusion of infectious disease, and it is probable that at times no school in a given locality may be thus operating. This being so the influence for harm of any given school or schools may be swamped as it were by the negative influence of many other schools. Dr. Niven, the medical officer of health of Manchester, has been at pains to consider the scarlet fever incidence in relation to each school in his district, and in his last annual report he shows very clearly how while the majority of schools were, during the period to which the inquiries related, not potent for mischief, others were very materially so; and his study shows further the necessity of approaching the operations of any given school by a separate examination of each of the departments of that school. As Dr. Niven observes at the conclusion of his investigations, "the statistics given by Mr. Shirley Murphy are clearly supported by this inquiry as to fact and significance."

We do not propose to further discuss the manner in which Dr. W. R. Smith's arguments are dealt with by Mr. Murphy in his report now before us, inasmuch as we noticed Dr. Smith's report at some length in our columns at the time of its publication in 1896.[2] It seemed to us then, and it seems to us still, that much of that report was not altogether relevant to the issue. For instance, Dr. Smith discussed the incidence on several counties or groups of counties in England, and, in consequence of the unequal and varying incidence of the disease on the several areas, he was apparently led towards his conclusion that schools exercised but an unimportant influence in the spread of diphtheria. For our part we have never been able to see the force of this argument, and it would seem to us to be equally illogical to infer that because the incidence of enteric fever varies very materially in different counties and parts of England, and that it may at times be difficult to determine the part which specifically contaminated water may have had in the spread of the disease that therefore the influence which contaminated water has had in the country as a whole is "unimportant" and no very special measures have been needed to check its operations.

The bacillus of enteric fever is, as far as we can ascertain or infer, not always present in our public water-supplies, and even when it is present it but rarely finds itself under conditions prone to its multiplication. Similarly with respect to diphtheria the bacillus of that disease is not always present in all our elementary schools and when it does obtain entry therein the conditions necessary for promoting a high degree of infectivity are doubtless often absent.

In our view, however, the question of polluted water-supplies and of the spread of infectious disease by means of elementary schools both need vigorously dealing with, and in our next article we shall discuss the improvements in this direction of school regulations.

[1] London County Council Paper: Report by the Medical Officer of Health on Diphtheria and Elementary Schools. No. 399. Price 1s.; post free 1s. 1½d. P. S. King and Son, 9, Bridge-street, Westminster, S.W.

## HUNTER *v.* CLARE.

IN the Queen's Bench Division of the Royal Courts of Justice on Jan. 24th this case was heard before Mr. Justice Lawrance and Mr. Justice Channell. Mr. Haldane, Q.C., and Mr. Condy appeared for the appellant and Mr. Muir Mackenzie for the respondent. The real parties to the dispute were the Society of Apothecaries on the one hand and the General Medical Council on the other. The question at issue was whether a Licentiate of the Society of Apothecaries was entitled to describe himself as a physician. The present case was one stated by the

[2] THE LANCET May 23rd, 1896, and June 13th, 1896.

justices of Cambridge who fined the late Mr. Kingsley Hunter, L.S.A., £5 and 3 guineas costs under Section 40 of the Medical Act of 1858 for "wilfully and falsely pretending to be and taking and using the name and title of physician." The application for the decision of the Queen's Bench Justices was argued at length occupying the whole of the morning sitting of the Court. After lunch the following judgments were delivered:—

Mr. Justice LAWRANCE said that the real question the court was asked to decide was whether a person having the certificate of the Society of Apothecaries, by virtue of which he is entitled to work both at medicine and surgery as well as an apothecary, is entitled to describe himself as a physician or whether in so doing he contravenes Section 40 of the Medical Act, 1858. In his lordship's judgment such a person was not entitled to describe himself as a physician and if he did so falsely and wilfully the conviction was justifiable. Until 1886 the certificate granted by the Society of Apothecaries gave a qualification to practise as an apothecary only. In that year it was determined that for the future no one should be licensed to practise in any one of the three branches into which the profession is divided unless he had passed qualifying examinations in all. The appellant, whose diploma dated from later than 1886, called himself a "physician." How was that expression used? Was it a mere description of himself as a doctor in the colloquial sense or was it used to imply that he held a medical degree of a university or some qualification entitling him to act as a physician? To any ordinary mind the latter was what the word physician would imply. His lordship came to the conclusion that although there had been misdescription it was not wilfully false and that the conviction must therefore be quashed, but without costs, as the respondent had succeeded upon the main point.

Mr. Justice CHANNELL said that upon the whole he was of the same opinion. He thought, though he was not without doubt, that the appellant had falsely described himself as a physician. Whether that was so or not was the main question upon which the opinion of the Court was desired, for counsel, though nominally appearing for the appellant and respondent, had stated that they were really instructed by the General Medical Council and the Apothecaries' Society who wanted the point settled. The question was whether it is a true description for a Licentiate of the Society of Apothecaries to describe himself as a physician. That depended upon the sense in which the word "physician" was used in Section 40 of the Medical Act, 1858. If in that section the word meant merely a person duly qualified to practise in physic then the appellant was a physician, because, though it was not so at one time, a Licentiate of the Society of Apothecaries now becomes entitled to practise medicine and surgery. But before the Act of 1858 physician was commonly used as applying to persons in the highest grade of medical practitioners and his lordship thought it was so used in the Act. There was confirmation of that interpretation in several places in the Act. In that sense a Licentiate of the Society of Apothecaries was not, in his opinion, a physician. His lordship then expressed his concurrence with Mr. Justice Lawrance in holding that the appellant had not wilfully misdescribed his qualification and that the conviction must therefore be quashed, though under the circumstances without costs.

## THE WORSHIPFUL COMPANY OF PLUMBERS.

THE annual dinner of the Plumbers' Company "to meet the Lord Mayor and the Sheriffs of the City of London" was held at Salters' Hall on Wednesday, Jan. 18th, under the presidency of the Master of the Company (Alderman Richard Hind). Amongst the large number of guests present were the Lord Mayors of Leeds, Sheffield, and Belfast, and Mayors of other important provincial towns and many well-known medical officers of health and others interested in sanitation. In responding to the toast of "The Houses of Parliament" Mr. T. W. Russell, M.P., Parliamentary Secretary to the Local Government Board, referred to the Plumbers Registration Bill and said that his department never had two opinions with regard to that Bill as the registration and examination of plumbers seemed to be so necessary and useful. His department had not changed its mind though it could not be said that the Bill was ideally drawn. The Bill had been under discussion for several years past and it had passed the second reading three or four times, but it seemed to him that many who pretended to be interested in the movement only came forward to support it when it reached the report stage. In conclusion, he expressed a sincere hope that the next time the Bill was introduced it would pass the House of Commons. The toast of "The Worshipful Company of Plumbers" was acknowledged by the Master who expressed a hope that the Houses of Parliament would soon confer upon the Plumbers' Company the authority which it wished to possess in the interests of the public health.

It may not on this occasion be out of place to remind our readers that THE LANCET owes a debt of gratitude to the Worshipful Company of Plumbers. Some three or four years ago we appointed Special Commissioners to investigate the difficult subject of the "Relative Efficiency and Cost of Plumbers' Work." It occurred to us that if when our work was finished we could be so fortunate as to obtain an authoritative criticism, or at any rate a statement of opinion thereon, from such a high and competent authority as the Company of Plumbers, where the results of our Commissioners' labours were found to be of value that value would be enhanced by the approval of the Company; where they were considered to be faulty our readers would have the benefit of the Company's criticism. In answer to our application to the Company we received a courteous and kind reply acceding to our request, one stipulation only being made, and that a highly proper one—namely, that the "Report of of the Special Committee appointed by the Worshipful Company of Plumbers to offer criticism and suggestions upon the report of an inquiry undertaken by THE LANCET into the subject of the 'Relative Efficiency and Cost of Plumbers' Work" should appear as the work of a Special Committee appointed by the Company for the purpose and not as the work of the Company. The reason for this request was that the Company does not in its corporate capacity take any part in what may be regarded as "trade matters," but directs its efforts entirely to promoting the sound technical instruction of plumbers combined with the necessary arrangements for establishing an adequate system of registration and control over those men who are registered as qualified plumbers.

The Special Committee appointed by the Company went very thoroughly into the vast amount of detail which was contained in our report and must have devoted a very great deal of time and labour to the work. Their report was duly sent to us and published with that of our Special Commission in THE LANCET of July 4th, 1896. The criticisms of the Special Committee were on the whole of a favourable nature and to their conclusions and findings of fact they added some valuable observations and suggestions.

We are glad to take this opportunity of tendering to the Worshipful Company of Plumbers in general and to the Special Committee in particular our cordial thanks for their coöperation—a coöperation which is probably unique, for never before surely have a City Company and a medical journal joined hands in the cause of sanitary science.

Several of the City Companies are becoming very useful allies in the cause of public health. The Plumbers' Company, although in their corporate capacity they do not take any part in what may be regarded as trade matters, yet exercise great influence over that branch of commerce which is represented by plumbing, and do all they can to promote the sound technical instruction of plumbers and by some useful form of control such as registration to protect the public from the too common dangers of defective plumbing work. The Grocers' Company afford another instance in the splendid support which they give by their scholarships to scientific research, and other City Companies by their liberal donations to hospital funds and hospitals evince their interest, if not in public health, in the health of the public. Of the fact that the City of London itself recognises the work of, and wishes to honour, those whose life duty it is to guard the health of the public a remarkable illustration was afforded when in May last the Lord Mayor of London invited representative members of the medical profession to dine with him at the Mansion House—the City thus publicly honouring Medicine. We have no hesitation in saying that that honour was appreciated by the medical profession throughout the country.

## MEDICAL REFEREES UNDER THE WORKMEN'S COMPENSATION ACT.

THE Secretary of State for the Home Department has made the following further appointments of medical referees under the Workmen's Compensation Act, 1897:—

ENGLAND.

*Circuit No. 22.*—Dr. Thomas W. Thursfield, Leamington.
*Circuit No. 28.*—Mr. Alfred Owen Davies, Machynlleth, and Mr. Horace Allan Debenham, Presteign.
*Circuit No. 33.*—Dr. H. Muir Evans, Lowestoft, in lieu of Mr. C. H. Graham, resigned.
*Circuit No. 55.*—Mr. Robert Bruce, Milford-on-Sea.

IRELAND.

*County Louth.*—Dr. Thomas Joseph Moore, Ardee.
*Londonderry.*—Dr. Benjamin Lane, Limavady, in lieu of Mr. D. J. Browne, resigned.

# VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6875 births and 3979 deaths were registered during the week ending Jan. 21st. The annual rate of mortality in these towns, which had been 19·1 and 18·3 per 1000 in the two preceding weeks, further declined last week to 18·2. In London the rate was 17·2 per 1000, while it averaged 18·8 in the thirty-two provincial towns. The lowest death-rates in these towns were 13·7 in Derby, 13·8 in Burnley, 14·4 in Leicester, and 15·1 in Croydon; the highest rates were 22·4 in Halifax, 22·6 in Preston, 23·0 in Gateshead, and 26·6 in Swansea. The 3979 deaths in these towns included 380 which were referred to the principal zymotic diseases, against 368 and 352 in the two preceding weeks; of these, 104 resulted from whooping-cough, 98 from measles, 68 from diphtheria, 46 from "fever" (principally enteric), 32 from scarlet fever, and 32 from diarrhœa. The lowest death-rates from these diseases were recorded in Oldham, Croydon, Halifax, and Wolverhampton, and the highest rates in West Ham, Preston, Huddersfield, and Nottingham. The greatest mortality from measles occurred in West Ham, Manchester, Huddersfield, Nottingham, and Gateshead; from whooping-cough in Cardiff, Bristol, Swansea, Huddersfield, Nottingham, and Birkenhead; and from "fever" in Bolton, Preston, and Burnley. The mortality from scarlet-fever showed no marked excess in any of the large towns. The 68 deaths from diphtheria included 30 in London, 5 in Liverpool, 4 each in West Ham, Portsmouth, Leicester, and Sheffield, and 3 each in Birmingham and Leeds. No fatal case of small-pox was registered last week in any of the thirty-three large towns, and only 1 small-pox patient was under treatment in the Metropolitan Asylum Hospitals on Saturday last, Jan. 21st. The number of scarlet fever patients in these hospitals and in the London Fever Hospital on the same date was 2749, against 2939, 2912, and 2777 at the end of the three preceding weeks; 249 new cases were admitted during the week, against 225, 291, and 220 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 365 and 363 in the two preceding weeks, further fell to 295 last week, and were as many as 412 below the average. The causes of 61, or 1·5 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Cardiff, Bolton, Oldham, Sheffield, and in nine other smaller towns; the largest proportions of uncertified deaths were registered in Liverpool, Blackburn, Halifax, and Hull.

### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased in the three preceding weeks from 18·2 to 21·7 per 1000, declined again to 21·3 during the week ending Jan. 21st, but exceeded by 3·1 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 15·5 in Leith and 17·1 in Greenock to 22·4 in Glasgow and 23·5 in Dundee. The 649 deaths in these towns included 34 which were referred to whooping-cough, 20 to diarrhœa, 19 to measles, 9 to diphtheria, 6 to scarlet fever, and 6 to "fever." In all, 94 deaths resulted from these principal zymotic diseases, against 78 and 88 in the two preceding weeks. These 94 deaths were equal to an annual rate of 3·1 per 1000, which was 1·4 above the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had increased from 14 to 35 in the three preceding weeks, were 34 last week, of which 15 occurred in Glasgow, 12 in Edinburgh, and 3 in Dundee. The 19 deaths from measles showed a further increase upon those recorded in recent weeks, and included 9 in Aberdeen and 6 in Edinburgh. The fatal cases of diphtheria, which had increased from 3 to 11 in the three preceding weeks, declined again to 9 last week, of which 2 occurred in Glasgow, 2 in Dundee, 2 in Paisley, and 2 in Greenock. The 6 deaths referred to different forms of "fever" corresponded with the number in the preceding week, and included 4 in Glasgow, where 4 of the 6 fatal cases of scarlet fever were also recorded. The deaths from diseases of the respiratory organs in these towns, which had been 123 and 156 in the two preceding weeks, were 153 last week, and exceeded by 14 the number in the corresponding period of last year. The causes of 30, or more than 5 per cent., of the deaths in these eight towns last week were not certified.

### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 26·7 and 27·1 per 1000 in the two preceding weeks, further rose to 28·6 during the week ending Jan. 21st. During the past four weeks the rate of mortality in the city has averaged 27·5 per 1000, the rate during the same period being 18·2 in London and 22·8 in Edinburgh. The 192 deaths registered in Dublin during the week under notice showed an increase of 10 upon the number in the preceding week, and included 10 which were referred to the principal zymotic diseases, against 13 and 10 in the two preceding weeks; of these, 4 resulted from whooping-cough, 3 from "fever," 1 from diphtheria, 1 from scarlet fever, and 1 from diarrhœa, but not one either from measles or small-pox. These 10 deaths were equal to an annual rate of 1·5 per 1000, the zymotic death-rate during the same period being 1·5 in London and 4·0 in Edinburgh. The fatal cases of whooping-cough, which had been 6 and 3 in the two preceding weeks, rose again to 4 last week. The deaths referred to different forms of "fever," which had been 4 and 1 in the two preceding weeks, rose again to 3 last week. The mortality from scarlet fever corresponded with that accorded in the preceding week, while that from diphtheria showed a decline. The 192 deaths in Dublin last week included 34 of infants under one year of age and 54 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a decline from the numbers recorded in the preceding week. Ten inquest cases and 6 deaths from violence were registered; and 76, or more than a third, of the deaths occurred in public institutions. The causes of 12, or more than 6 per cent., of the deaths in the city last week were not certified.

# THE SERVICES.

### ROYAL NAVY MEDICAL SERVICE.

STAFF SURGEON JOHN BELLHOUSE BOWDEN TRIGGS has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet.

The following appointment is announced:—Surgeon R. Waterfield to the *Diadem*.

### ROYAL ARMY MEDICAL CORPS.

Lieutenant George S. Nickerson is seconded for service with the Egyptian Army. Lieutenant A. C. Lupton is appointed to the Coldstream Guards as an attached Medical Officer. Captain J. Thomson has embarked for India. Lieutenant H. O. B. Browne-Mason embarks for service in India. Brigade-Surgeon H. Harrison, r.p., late A.M.S., is appointed to the Medical Charge of the 49th Regimental District as a retired officer.

### INDIA AND THE INDIAN MEDICAL SERVICES.

The services of Captain Hogg, 8th Bengal Cavalry, are placed temporarily at the disposal of the Chief Commissioner of the Central Provinces for employment on plague duty. Surgeon-General R. Harvey, C.B., D.S.O. (Bengal), is confirmed in the appointment of Director-General, Indian Medical Service, and Sanitary Commissioner with the Government of India, from Oct. 25th, 1898. Lieutenant-Colonel A. J. Wilcocks, Civil Surgeon in medical charge of the Camp of His Honour the Lieutenant-Governor and Chief Commissioner, is granted furlough, partly in and partly out of India, for two years, with effect from Jan. 1st, 1899.

### VOLUNTEER CORPS.

*Rifle:* 4th Volunteer Battalion the Queen's (Royal West Surrey Regiment): Surgeon-Lieutenant E. J. G. Berkley to be Surgeon-Captain. 4th Volunteer Battalion the East Surrey Regiment: Charles James Martin to be Surgeon-Lieutenant. 1st (City of Dundee) Volunteer Battalion the Black Watch (Royal Highlanders): Surgeon-Lieutenant J. S. Y. Rogers to be Surgeon-Captain. 13th Middlesex (Queen's Westminster): Surgeon-Captain A. J. McD. Bentley resigns his commission.

### THE UNITED STATES ARMY AND THE LATE WAR.

Our service contemporary, the *Army and Navy Gazette*, of Jan. 21st in a long article under this heading, reviews the military reports which have been recently published by the Commander-in-Chief, Surgeon-General Sternberg, and General Merritt of the United States Army. The information contained in these reports will be read with much interest, and the lesson to be deduced from the facts being one of wide application and of practical importance we may briefly refer to them. In the first place it was recognised from the beginning, as we always contended would have to be the case, that if the Spanish position in Cuba was to be successfully attacked the United States navy must be mainly relied upon to do the work. As far as her army was concerned America was quite unprepared. Two very serious obstacles had to be avoided—viz., the disembarkation, on the one hand, of any land force in Cuba before the navy had secured complete command of the Cuban waters; and, on the other, the landing of any large military force on the island during the rainy or sickly season, which would, however, give an opportunity for carrying out the necessary naval operations, whilst at the same time admitting of the mobilisation, organisation, training, and equipment of the volunteer army. The advice tendered to the United States Government by their military authorities on these rudimentary points leaves little or nothing to be desired, for it appears to have been very wise and sound. But these very necessary preliminary arrangements were not, or could not be, fulfilled. It was a most fortunate circumstance for the American Government that the opposition, as far as the Spanish navy and army were concerned, proved to be so bad and weak as it turned out to be. As regards the medical history and aspects of the war, with which we are mainly concerned, the report of the Surgeon-General affords a very plain and sufficient explanation of the breakdown of the medical arrangements and of the amount of sickness, suffering, and mortality which followed. The medical staff of the United States army when the war broke out only amounted to 192—an utterly inadequate provision. This rendered a hurried call for the services of a supplementary staff of 650 "contract surgeons" necessary. Now it is no reflection upon the professional merits of these surgeons to say that they were foredoomed to failure. It is simply impossible for the most able and energetic practitioners drawn from civil life but totally ignorant of military methods of procedure to know what is absolutely essential for the elementary requirements of field medical service in the way of army organisation, administration, and hygiene. The great prevalence of avoidable sickness in the various camps was not so much due to the sites for such camps being badly chosen as to the imperfect sanitation that was maintained and the want of training on the part of those who had suddenly to encounter conditions of which they had no previous knowledge and experience. The trained hospital nursing corps, moreover, was quite insufficient; there was, it is alleged, an abundance of medical supplies but it was impossible to find adequate or timely transport for them, so that they might just as well have been a thousand miles away, for not being forthcoming when required it was a case of starvation amidst plenty. Lastly, although this does not exhaust all the factors that might be enumerated, the age limit for recruits had been reduced from twenty-one to eighteen, which is stated to have been found "a fatal misjudgment." The inefficiency from sickness among very young troops on taking the field is always large, especially in such a climate as Cuba. It is only right to say that General Merritt's report of the operations in the Philippines, where the difficulties which had to be encountered were much less than in Cuba, is of a much more satisfactory character. There was an abundance of hospital supplies of all kinds, the accommodation provided for the sick and wounded was good and sufficient, and there were, practically speaking, no grounds for complaint.

### THE GRENADIER GUARDS AND RIFLE BRIGADE AT KHARTOUM.

Mr. Steevens in his graphically written book, "With Kitchener to Khartum," was, it seems, labouring under a serious misapprehension (which he has since acknowledged and corrected) when he said that the Grenadier Guards and Rifle Brigade had a bad reputation for going sick and sent more men into hospital in a week than the whole of the 1st Brigade. We know now that, according to the official returns, and on the authority of the officer commanding the 2nd British Brigade of the Khartoum Expeditionary Force, such was not the case. As a matter of fact, the Guards, with the exception of the Cameron Highlanders, were the healthiest of the eight battalions in the British Division, and were in all respects a highly efficient corps. As regards the Rifle Brigade, however, there was a good deal of ineffectiveness from fever owing to a large number of the soldiers of that corps having previously served in China and at Singapore and to their subsequent hard work and exposure in the Soudan; but on the day of the battle at Omdurman they turned out, Brigadier-General Lyttelton states, only slightly weaker in strength than the other battalions.

### THE BRITISH TROOPS IN CRETE.

Major-General Sir H. C. Chermside, commanding the British troops in Crete, in his despatch concerning the gallant behaviour of the Highland Light Infantry and men of other corps in Candia on the occasion of the difficult and dangerous crisis that occurred in the treacherous attack on the British garrison on Sept. 5th, 1898, includes in the list of names recommended for favourable consideration the following: Royal Army Medical Corps: Lieutenant L. Addams Williams, Lieutenant T. H. M. Clarke (wounded), Private D. Philemon, Private G. H. Lowden, Private G. Leggatt, and Private G. Biddiscombe (wounded).

### ARMY MEDICAL SCHOOL, NETLEY.

The seventy-seventh session of the Army Medical School will be brought to a termination on Tuesday, Jan. 31st, when the prizes gained will be distributed by Sir Ralph Knox, K.C.B., Permanent Under-Secretary of State for War.

### DEATHS IN THE SERVICES.

Fleet Surgeon Godfrey Goodman, R.N. (retired), on the 20th inst., at his residence, Cullompton, Devon.

# Correspondence.

**"Audi alteram partem."**

## "THE NEW MIDWIVES BILL."

*To the Editors of* THE LANCET.

SIRS,—Dr. Alexander McCook Weir calls attention in THE LANCET of last week to your editorial remark in November last that "No Midwives Bill which we have yet seen contains any provision for ensuring that in every case a lying-in woman, however poor, shall have the benefit of qualified medical attendance, and without such provision no Midwives Bill should pass." He goes on to show that in a Bill drawn by him called "A Sick and Obstetric Nurses Bill" there was a clause making it unlawful for any person (male or female) to assume the title of midwife or to practise as such, or to act as a sick and obstetric nurse for gain or otherwise without the supervision and control of a fully qualified and registered medical practitioner, any infringement of this rule to render the person infringing it liable to a fine of £10 or imprisonment for a month.

I wish to point out that in the report of the Committee of the General Medical Council on the Bill of 1898 amongst other indispensable requirements in any such measure the following provision was made:—

> That it shall be the duty of the local sanitary authority of every district to appoint such registered medical practitioners as are willing to be so appointed to whom midwives shall be required to apply for assistance and advice in all cases other than cases of natural labour and under all circumstances which may be laid down by the Midwives Board as calling for medical intervention. The local authority shall pay to every registered medical practitioner so consulted a sum of not less than one guinea and not more than two guineas, provided always that when the patient is able to pay for such medical services the local sanitary authority shall recover the fees for the same from the patient or other responsible person by ordinary process of law.

When the report came to be discussed in the General Medical Council this provision was modified as follows:—

> That the regulations under which licensed midwives are required to practise should include provisions securing that the midwife shall immediately seek qualified medical assistance in every case which

presents symptoms of difficulty, abnormality, danger, or disease on the part of the mother or of the new-born infant.

The principle of the two clauses is the same, but while that of the Committee provides for the insertion of the requirement with some details expressly in the Bill, that of the Council entrusts the matter to the Midwives Board to be provided for in their regulations, which are to be subject to the approval of the General Medical Council.

The difficulty of inserting any clause involving money payment in private Bills is probably the reason of the non-insertion of such a clause. But I think the omission is to be regretted. I recognise the effort of the promoters to comply with the general views of the General Medical Council and cannot doubt that they do not differ seriously from the Council in wishing to subordinate all midwives' work in cases of "difficulty or abnormality" to the supervision and control of medical practitioners—a *sine qua non*, in my judgment, of all legislation of this sort.

I am, Sirs, your obedient servant,

Highbury-place, Jan. 25th, 1899. JAMES GREY GLOVER.

## "OLD AGE AND REJUVENESCENCE."

*To the Editors of* THE LANCET.

SIRS,—In considering whether it is possible to increase the racial span of life—i.e., the inborn tendency to longevity—we must not forget that it is very doubtful whether characters impressed upon the individual by the environment (= acquired characters) are inherited, and whether therefore the acts of the parent before the conception of the child greatly influence the latter's career. Be this as it may, it seems certain that evolution proceeds essentially by "selection," from which it follows that the most effective way of producing a long-lived race is by allowing only those to marry who belong to long-lived families. In this way the span of human life might be prolonged almost indefinitely. In another place I have given reasons for my belief that the tendency of every living thing is towards immortality, and that senility is brought about by means specially evolved for the purpose, because it is of advantage to a species that its members should not live beyond a certain term, this term differing for different species, so that the processes which make for senility come into operation at different periods for different races. While therefore I hold that the most effective way of evolving a long-lived race of men is by artificial selection, I believe the best way to prolong the life of any given individual, apart from ordinary hygienic means, is to be sought for in the study of those mechanisms by which senility is normally and physiologically induced.

What these mechanisms are cannot at present be stated very definitely. I believe, however, it will be found that changes in the composition of the blood, whether by modification in internal secretions or what not, play an important part in determining senility, and that Brown-Séquard's attempts at rejuvenescing the old were not altogether chimerical. It is certain, again, that the cardio-vascular system takes a large share in inducing senility; the degree of systemic arteriolar resistance helps to set the vital pace, an abnormally high resistance causing premature senility by prematurely wearing out the heart and arteries, and in this way influencing the entire bodily nutrition. If therefore we wish to keep a person young we should keep his blood-pressure low, and I believe that we can in this way stave off senility even more effectually than by the plan adopted by Dr. Althaus.

Dr. Ainslie Hollis seems to hint that delayed marriage tends to delay puberty in the offspring. I doubt whether this is the case. There is, indeed, a popular belief that the children of old men tend to develop prematurely. Such marriages probably do, however, tend to racial longevity. If, for instance (to take an extreme case), every man delayed marriage till forty, the large number of men who die before this age from disease would be prevented from leaving children inheriting a similar tendency to early death. In this connexion I would observe that the custom of monogamy operates injuriously as regards the extension of racial life. Under this system men are for the most part prevented from begetting children after fifty, and thus those who live to be very old do not as a rule have more children than those who die at middle age. Under a system of polygamy, however, the former would leave the more numerous progeny, and thus there would be a proportionate increase in the number of children born into the world with an inherited tendency to longevity.

I am, Sirs, yours faithfully,

Wimpole-street, W., Jan. 22nd, 1899. HARRY CAMPBELL.

*To the Editors of* THE LANCET.

SIRS,—In your leading article on my paper on the above subject in THE LANCET of Jan. 21st you state that "he appears to us to forget that obviously the vital energy of the subject, his hereditary clockwork, must still be in fair working order." Allow me to say that I have by no means forgotten this, as shown by my remark that "I have come to the conclusion that if old people receive about the sixtieth or sixty-fifth year, *or indeed at any time when age has begun decidedly to tell upon them*, proper and faultlessly carried-out applications of electricity to the brain," then benefit may be expected. Of course, no one would think of applying electricity to an old person *in articulo mortis*, or in such a state of decrepitude that a response to any treatment appears to be unlikely. The treatment must be confined to elderly people who are, although decidedly failing, yet in tolerable condition and therefore likely to be benefited by it.

I am, Sirs, yours faithfully,

JULIUS ALTHAUS, M.D. Berlin.

Queen Anne-street, W., Jan. 21st, 1899.

*** Dr. Althaus appears to mean that benefit is only to be expected from "faultlessly carried out applications of electricity" when the recuperative powers of the patient may be expected to exert themselves unaided or under other therapeutic measures. This is an intelligible view.—ED. L.

## "IRRIGATION IN SUPPURATIVE OTITIS MEDIA."

*To the Editors of* THE LANCET.

SIRS,—Mr. F. Faulder White's letter on the above subject in THE LANCET of Jan. 21st and his criticism of Dr. Goldstein's views as expressed in his article upon the Therapy of Suppurative Otitis Media[1] does not seem to me to accurately place his (Dr. Goldstein's) views upon this important subject before your readers. Mr. White believes that the only efficient plan of cleansing the middle-ear cavity of its purulent contents is by means of warm irrigations, and adds, moreover, that such warm solutions are "invaluable in arousing the dormant vitality of the tissues." Dr. Goldstein, on the other hand, considers that the judicious use of the cotton-armed probe combined with inflation of the middle-ear by means of the Eustachian catheter and suction by means of a Siegle's speculum is sufficient to ensure cleansing of the part without increasing the already sodden condition of the mucosa, which, he says, is only accentuated by the addition of aqueous medication. Dr. Goldstein further remarks that he is referring only to cases of simple suppurative otitis media and not to cases of old-standing disease associated with necrosis and extensive destruction of the soft tissues of the middle-ear and possibly even involvement of the mastoid area. Mr. White, on the other hand, says that he refers to cases "of long standing in which there is no part of the middle-ear that can be said to be uninfected and yet open to the gentle force of an irrigating fluid, but there are certainly grave objections to the frequent use of the probe in the early stages of treatment."

For some considerable time past I have been in the habit of employing in early cases of suppurative otitis media—by which term I mean cases where the pathogenic infection is confined to the soft parts and where no bone lesion is present—the "dry method of treatment" and can claim not only good results but also more speedy recoveries than when solutions and irrigations have been made use of. It has always appeared to me that one of the main causes of the inveterate nature of certain middle-ear suppurations is due not to the virulence of the original pathogenic infection but to the engrafting of a secondary infection from without either from the use of unclean instruments, inefficient antiseptic precautions, or the generally surgically unclean habits of the patient. It has been held that the dry method of treatment should not be used in those cases where the perforation is small for fear of causing secondary retention of

[1] The Laryngoscope, December 1898.

secretion, but I hold that no perforation should be allowed to remain in a condition which is judged to be inefficient to secure surgical drainage.

Such perforations should at once be enlarged by incision and as much fluid as possible removed from the middle-ear by mopping, by inflation, and by suction with the pneumatic speculum. It is my custom then to pack the external meatus down to the edges of the perforation with thin strips of gauze—e.g., double cyanide, iodoform, chinosol, &c.—and to subsequently place a pad of boric wool over the ear and fix it by means of a bandage or specially constructed silk ear cap. The dry gauze dressing appears in early cases to have a fourfold advantage: (1) in preventing the risks of infection from without; (2) in securing an efficient and continuous drainage; (3) in checking that tendency to the formation of exuberant granulation tissue which I believe is largely fostered by the injudicious use of watery solutions; and (4) in affording physiological rest to the inflamed organ, a most important factor in my opinion and one too often neglected in such cases.

Where bone lesions are present or where involvement of the mastoid area is probable surgical measures appear to me not only justifiable but also necessary. I am willing to admit with Mr. White that "much of the doubt which still remains as to the value of irrigation is due to the fact that it seldom gets a fair trial," but at the same time consider that the more effectually we shut off where possible the risks of secondary infection from outside sources, the more effectively do we treat the simple suppurations occurring in the cavity of the middle ear.

I am, Sirs, yours faithfully,

Manchester, Jan. 23rd, 1899. W. MILLIGAN.

## BORIC ACID POISONING.

*To the Editors of* THE LANCET.

SIRS,—In an interesting article published in THE LANCET of Jan. 7th Dr. R. B. Wild has called the attention of the profession to the probably frequent annoyances and the more rare, but still possible, dangers produced by the absorption of boric acid into the system. That boric acid is capable of producing skin eruptions when taken by the mouth in medicinal doses for a varying period is quite certain. During the last year I have seen two well-marked cases. In the first case an old man with stricture took half a drachm of boric acid per day for nine days. On the tenth day he began with an irritable papulo-erythematous rash on the face, trunk, arms, and legs. This continued to get worse in spite of treatment and a week or two later I was asked to see him. I suspected the boric acid and suggested it should be omitted. This was done and the rash rapidly disappeared. On resuming the drug the rash and irritation reappeared in two days. The drug was then finally omitted and the rash quickly faded. The urine contained boric acid for some days after the drug was left off. There was no albuminuria. In the second case a middle-aged man suffering from enlarged prostate was treated with 15 gr. of boric acid per day, the bladder also being washed out daily with boric lotion. After about fourteen days a papular rash appeared on the arms, legs, and trunk; it was very irritable. I ordered the drug to be left off and the rash quickly improved. On resuming it again the rash reappeared, to once more fade on leaving it off. There was no albuminuria. In another case an eruption was produced by biborate of soda. A young girl suffering from epilepsy was shown to me by my colleague, Dr. Duncan Burgess, with an extensive mixed eruption produced by biborate of soda which she had been taking for three or four months. In this case the hairy scalp showed a seborrhœic scaling with loss of hair and the lower part of the trunk and buttocks were covered with an extensive erythematous, papular, and in part vesicular eruption.

In none of these cases were there any other toxic symptoms, but the eruptions in themselves are sufficiently annoying as they will not respond to any local applications and a proper diagnosis is of great importance. As regards the frequency of eruptions produced by boric acid used as a food preservative I cannot speak from personal experience, but it is certainly possible and I quite agree with Dr. Wild that when a case of extensive anomalous eczema appears without any previous hint of a tendency to such affection and persists in spite of treatment it is well to bear in mind the possibility of a boric acid rash and to examine the urine for the drug. The test is so very easily performed and so delicate that any boric acid present will be immediately detected. If after that boric acid is found it remains only to ascertain how it has been taken in. Such eruptions, however, are not usually of a very serious nature, nor are toxic symptoms as a rule present, and provided the medical attendant is aware of the possibility of the cause the condition is quickly relieved. What I should like to draw attention to in connexion with Dr. Wild's excellent article is that the boric acid ointment and fomentations, although as a rule harmless and valuable, may become sources of boric acid poisoning and at times of serious toxic symptoms. My attention was first called to this subject by being asked to see a boy suffering from an intense "scarlatina-like" rash which had come on five days after a burn of the arm and neck. The burn was not very extensive or severe and the boy was doing very well until this rash appeared. He steadily got worse, the rash became more intense, and symptoms of toxic poisoning set in, ending in coma and death. The case is alluded to by Dr. Wild and was published in THE LANCET of April 11th, 1896. Since that time I have been especially interested in this subject and as a result of several observations I have come to the following conclusions:—1. That boric acid used as a dressing for wounds, either in the form of unguentum boracis or fomentations, is absorbed and may be quickly found in the urine. 2. That where there is an extensive surface, as in burns, it frequently produces a patchy erythematous eruption with or without rise of temperature and with slight toxic symptoms. 3. That these quickly disappear when the boric acid is left off. 4. That they may also disappear even if the dressing is continued, toleration of the drug occurring in some cases. 5. That if a sufficiently large amount be absorbed relatively to the individual resistance power very grave symptoms or even death may occur.

When it is remembered that the unguentum boracis contains 10 per cent. and the lotio boracis 5 per cent. of the drug and that it is no uncommon thing for an ounce or more of the ointment to be spread on lint, applied to the absorptive surface, and frequently renewed, it will be seen that a very considerable dose may be absorbed in a very short time. Almost all the serious cases of poisoning from boric acid recorded up to now have been where it has been locally applied to an absorptive surface, and I think we may fairly conclude that whilst taken by the stomach it may produce unpleasant skin eruptions of various kinds, it is when applied in large quantities to an absorptive surface that it is most likely to produce dangerous toxic symptoms which may prove the more dangerous because of the lowered condition of the patient and the increased assiduity in the application of the dressings whereby fresh fuel is added to the fire. As regards the character of the eruption which is present in these cases of extensive poisoning I can only say that it is usually erythematous in small rounded patches or running together into considerable areas and it tends to be marked where there is any pressure, but it is very variable and, in fact, is merely, in my opinion, an "erythematous response" which might equally well be called forth by other toxic substances, whether in the form of drug or other toxin.

I am afraid it is too much to ask you to insert any further account of my cases in a letter of this kind, which to be of any service would be of considerable length. Therefore thanking you in anticipation,

I remain, Sirs, yours faithfully,

Sheffield, Jan. 10th, 1899. ARTHUR HALL.

## THE MALARIAL PARASITE IN RHODESIA.

*To the Editors of* THE LANCET.

SIRS,—Mr. Dunley-Owen[1] has published two papers embodying some observations on the malaria parasite as found in Rhodesia. His results are most remarkable and in many points quite at variance with those obtained by the recognised authorities on the subject. As his remarks have hitherto been allowed to go unchallenged we think that it might be well to draw attention to these discrepancies, in the hope that statements so subversive of what is generally believed may be either withdrawn as mistakes or substantiated by full, adequate, and detailed evidence.

[1] THE LANCET, Sept. 24th and Dec. 31st, 1898.

In the first place, it is to be noted that he admits that his previous knowledge of the subject was gleaned from "Fagge's Medicine." He appears to be unaware of the writings of Laveran, Marchiafava, Celli, Bignami, Mannaberg, Osler, or Thayer and Hewitson; nor is he aware that malaria is endemic in Italy and has been largely if not chiefly studied there, for he says, "In Europe, for instance, it (i.e., malaria) is scarcely ever met with, and probably only in those who have previously been in the tropics." In the second place, he never mentions how his specimens were prepared, whether they were examined stained or fresh, nor what precaution he took to avoid errors of observation—points of considerable importance when dealing with so-called crescents and pigmented bodies in the soil. Thirdly, he appears to argue that all diseases due to hæmatozoa are the same and for purposes of observation are interchangeable, for he speaks of the malarial bacillus as present in man suffering from malaria and in horses suffering from "horse sickness." It is well known that there is a number of hæmatozoa, the most familiar being halteridium and proteosoma in birds and pyrosoma in cattle, giving rise to diseases in animals quite distinct from malaria in man. As hitherto all attempts to communicate malaria to such of the lower animals as rats, rabbits, &c., have failed, we are loth to accept the transmission of human malaria to rats through the "blind fly."

Again, he states in his second paper that he was mistaken in the bacilli, and that he finds that they were really crescents. Reading his observations in the light of this admission we think that it will be agreed that he is certainly the first observer who has been fortunate enough to see the crescents multiply in the blood; and we think he alone has observed the red discs burst and give rise to crowds of crescents. Next, the sporules of which he has seen so many we would suggest were blood-platelets; this mistake appears to be very commonly made by those who have not had much experience in blood examination. We are not aware that any other observers have described "blackened corpuscles" in the blood of malaria patients, and it is generally admitted that the leucocytes are normal in number or decreased, and not increased as Mr Dunley-Owen states.

Lastly, it is difficult to reconcile these two contradictory statements—viz.: (1) "I have made cultivations of the malarial bacillus obtained at this time of the day (i.e. between one hour before and one hour after sunrise) from the grass and the soil but only to the height of four feet from the ground"; and (2) "This led me to inquire what there was in the herbage or the soil which could produce 'horse sickness' and I made microscopical examinations of dew, grass, and soil, but without any discovery." On the whole we feel inclined to agree with Dr. Manson (in spite of the protestations of Mr. Dunley-Owen) that "hitherto all attempts to cultivate the parasite ..... have failed."

We are, Sirs, yours faithfully,

ROBERT HOWARD.
Guy's Hospital, Jan. 17th, 1899. WALTER C. C. PAKES.

## REGINA v. REICHARDT.

*To the Editors of* THE LANCET.

SIRS,—The case of Regina v. Reichardt being now closed may I write to second the appeal made in your columns on August 6th, 1898, by Dr. Savage for funds to meet the very heavy expenses which have been incurred by Dr. Reichardt in his defence? I need hardly say that the case is one of the greatest importance both to the medical profession and the public at large. The Commissioners in Lunacy sought to convict Dr. Reichardt of the misdemeanour of taking a lunatic into his house without certificates, notwithstanding their knowledge of the fact that Mr. E. C. Kingsford, Dr. Savage, and I, each of us, had separately expressed the opinion that the patient was not one that ought to be certified. The action of the Commissioners is therefore virtually an attempt to compel medical men to treat all cases of unsoundness of mind by Act of Parliament by placing them under certificates. If the prosecution had been successful in this and in a prior case no one would have been any longer able to take any case of temporary unsoundness of mind into his house except as a certified lunatic. A more cruel, radically unsound, and preposterous doctrine it is impossible to conceive. With the temporarily deranged recovered of their madness and prosecuting their medical advisers because of their certification on the one hand, and with the Commissioners prosecuting us on the other hand because of the absence of certificates, God help the unsound of mind who will yet be needing treatment.

Fortunately for those who become temporarily deranged and for those who take them into their houses to treat them—for most of these cases cannot well be treated at home—both Mr. C. D. Sherrard's and Dr. Reichardt's prosecution have proved unsuccessful. But the defendant is saddled with heavy expenses amounting to £700 because he did his duty and the best for the patient. I venture to hope that the medical profession will see that in defending himself he was defending the right of everyone of us to do the best that can be done for every individual patient according to his needs, even though Acts of Parliament when administered according to their letter rather than by their intention may seem to indicate otherwise.

I am, Sirs, yours faithfully,

Jan. 24th, 1899. JAMES F. GOODHART.

## THE METROPOLITAN WATER-SUPPLY.

*To the Editors of* THE LANCET.

SIRS,—In reply to the question raised in your article on this subject in your impression of the 21st inst. I have to say that by the *unqualified* term "efficient filtration" I mean the filtration contemplated by the Act of Parliament passed in 1852—viz., freedom from opalescence or particles in suspension visible to the naked eye in ordinary light. This is very different from efficient *bacterial* filtration, by which I mean that the water does not contain more than 100 microbes, or their spores, per cubic centimetre capable of development on a gelatine-peptone plate. This is a kind of filtration not recognised by Parliament, and the subject is not yet quite ripe for legislation.

I am, Sirs, yours faithfully,

The Yews, Reigate, Jan. 25th, 1899. E. FRANKLAND.

## SUSTAINING FARE FOR THE CREWS OF LIFEBOATS.

*To the Editors of* THE LANCET.

SIRS,—When I became intimately associated with the direction and management of our magnificent lifeboat service I was surprised to find that no provision existed for the sustenance of the crews when on cold prolonged service at sea. I accordingly designed a waterproof tin to fit the jacket pocket and had it filled with the best chocolate. It was my original intention only to have them supplied to our local crew, but really I think every man should have the opportunity to get one who goes to sea in the various lifeboats. Messrs. Cadbury replied to my queries by most generously offering to provide tins similar to my design and filled with chocolate to every lifeboat man in the United Kingdom. I accordingly wrote to the secretary of the Royal National Lifeboat Institution, Mr. Dibdin, who warmly acknowledged my scheme and the great offer of Messrs. Cadbury and the matter is before the committee. But the acceptance of it is quite another matter. I believe if you realise the necessity of the matter you will help to push it on. Perhaps also you might call for opinions as to the best sort of "emergency ration" for such cold and trying work. The stuff need not be used if the service be a short one and so may lie in store.

I am, Sirs, yours faithfully,

C. L. FRASER, F.R.C.S. Edin., &c.

Berwick-on-Tweed, Jan. 23rd, 1899.

## "A CASE OF CHRONIC ONE-SIDED PULMONARY ATELECTASIS."

*To the Editors of* THE LANCET.

SIRS,—In THE LANCET of Jan. 14th an account is given of a case of chronic one-sided pulmonary atelectasis, such condition being a rare one. A similar case in which the necropsy revealed the condition was under the care of Dr. Curnow in King's College Hospital last September or October. The patient was a middle-aged man who was admitted suffering from pneumonia and having been a heavy drinker died from exhaustion. On admission it was found that the impulse of the heart was situated in the left mid-axillary line, whilst the normal area of cardiac dulness was resonant on

percussion. There was apparently nothing to account for this condition. The necropsy revealed the fact that the left lung was simply a small mass in a semi-atelectatic condition, whilst the right lung (upper lobe) had expanded in a compensatory manner and filled the greater part of the left chest, thus obliterating the normal area of cardiac dulness. There was no external deformity of the chest. The organs were shown by Dr. Norman Dalton at a meeting of the Pathological Society of London and a discussion followed as to whether the condition was congenital or acquired. Dr. Curnow considered that the left lung had been pathologically destroyed early in life, probably during fœtal life.

I am, Sirs, yours faithfully,

THOS. H. GARDNER,

Resident Medical Officer, The Royal Hospital for Diseases of the Chest, City-road, E.C.

Jan. 19th, 1899.

## ANÆSTHETISTS' FEES UNDER THE POOR-LAW.

*To the Editors of* THE LANCET.

SIRS,—Will you kindly reply in your next issue whether the Local Government Board have ever issued an order sanctioning a fee for the administration of chloroform in operations done in the workhouse or district to medical officers under contract? I have some recollection of having seen some such announcement.

I am, Sirs, yours faithfully,

M.D.

Jan. 22nd, 1899.

*** The Local Government Board have issued no order on the subject of fees for the administration of chloroform in operations performed in the workhouse or the parish, but it is not the practice of the Board to raise any objection to the payment of a reasonable fee for assistance "at an operation" (which is the official term for the administration of an anæsthetic), rendered by an outside practitioner to the medical officer of a district or workhouse in the performance of operations of difficulty or danger. It is their rule, however, to call for a short report upon the case from the medical officer before sanctioning the fee. This procedure is of fairly frequent occurrence in large parishes and institutions, and no difficulty is ever raised. Indeed, the Board would probably hold the medical officer responsible, and blameworthy if anything went wrong, if he were to attempt to perform an operation of any importance without adequate assistance of this kind. In institutions where there is an assistant medical officer he is supposed to render such aid, but even in these circumstances, where the operation is one of much difficulty and an assistant is required in addition to the chloroformist, a fee has been sanctioned. The sum approved varies from 1 to 3 guineas, according to the magnitude and duration of the operation.—ED. L.

## NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

*The Progress of the Plague.—The Plague Commission.*

THE progress of the plague in India during the past week was on the whole satisfactory. The new cases reported for the Bombay Presidency are only 2636, as against 3196 the week previously. The deaths have been 2106 against 2576. In Bombay city, however, the returns are unfavourable. There was a considerable rise both in the reported plague attacks and mortality. The disease seems to be increasing in virulency, for with 151 cases reported there were 146 deaths, while the previous week recorded 147 cases and 113 deaths. The total mortality was 894, against 742 in the previous week, a rise of 152. The quinquennial weekly average is about 500. The rise in the Dharwar and Bijapur districts was more than counterbalanced by a fall elsewhere.

In the Madras Presidency the situation remained unchanged, but a great improvement took place both in the military and civil stations of Bangalore. There was a fall in the number of deaths in the Mysore territory from 416 to 241. The position in the Wardha district central provinces has also improved. On the other hand, plague seems increasing slightly in Broach and in the villages surrounding Poona. No fresh cases have occurred at Rahon in the Punjab, but heavy rain has caused great discomfort to the unfortunate people who have been turned out of their houses, and the huts in the plague camp have been swamped. The greater part of the town has been evacuated, and the remaining inhabitants will soon be cleared out. Karachi records one case and two deaths, Poona three cases and two deaths.

The Plague Commission has been sitting in Calcutta, as I said in my last letter. Dr. Justice referred to the 3 cases of plague occurring among the peons of the High Court, in which he attributed the infection to dead rats, many being seen in the neighbourhood, as there was no connexion between the peons and other infected persons. Dr. Bose (native practitioner) thought that the plague was brought from Bombay, but there was no specific instance of men coming from Bombay with plague; it was simply suspicion. A heavy mortality amongst rats was noticed in March and April and the plague first appeared in Calcutta in April. He thought bubonic cases were infectious. The mortality returns were not satisfactory and plague deaths were registered under other names. Friends registered deaths and there was no system of death certificates. Dr. Hossack thought that there was a factor in the environment of Calcutta inimical to the spread of plague in epidemic form, but what it was he did not know. He said the bustis of Calcutta were in a very insanitary condition. The disinfecting measures adopted were greatly insufficient. He said that the native doctors with Indian degrees rendered no assistance, but resisted the efforts of the officials and helped to conceal cases. Mr. J. N. Banerjee had seen cases of fever with glandular enlargement, but the symptoms were little like the cases of plague which he had attended. There was great difficulty in getting information of cases.

On Jan. 3rd Surgeon-General Harvey, Director-General of the Indian Medical Department, was examined. So far as he could see the case for inoculation seemed absolutely clear. Though not absolutely preventative it was so to a very considerable degree. Experiments of which he had knowledge were such as to exclude the possibility of error. He did not think people would consent to be inoculated on a large scale before an outbreak. They could not rely entirely on inoculation for coping with an outbreak. It was very valuable but could never be any but an auxiliary to sanitary measures. Looking at the importance of sanitation he thought it would be a good thing if they had in India a sufficient number of health officers with good qualifications whose time was actually given entirely to sanitary work. He had already recommended this and he expressed the hope that the time would come when every district had its sanitary medical officer. The chief obstacle was the expense involved. Calculation would show that if India spent on sanitation as much as England was supposed to do we should have to spend in proportion to the population £53,000,000 sterling, whereas the actual revenue was only £36,000,000.

On Jan. 4th the Plague Commission continued its sittings. Mr. Ferris had no doubt of the existence of plague in the city. Dr. Wallace had seen cases diagnosed as plague by others. He disagreed with the diagnoses. He was of opinion that the cases recorded as plague were those of malarial fever of a malignant type.

Mr. Greesbach, Director of the Geological Survey, pointed out that the largest number of plague cases had occurred on the soil covering the Deccan trap and crystalline rocks and only a very small number on the great alluvial belt stretching from the Indian Ocean to the Bay of Bengal. The former formation roughly coincided with the distribution of laterite deposits. On the trap and crystalline rocks 150,929 deaths had been recorded, while on the Indus-Ganges alluvium only 12,936 deaths had occurred, or only 7·88 per cent. His explanation of this apparently striking fact was that the exodus of scared population spread themselves fan-like over the Deccan trap from Bombay.

On the conclusion of their work in Calcutta the Plague Commission will proceed to Agra. They will then go on to Lahore and are timed to arrive in Karachi by Jan. 23rd. Afterwards they will proceed to Cutch Maudvie, Ahmedabad, Baroda, Broach, Surat, and Damaun, reaching Bombay on Feb. 12th, where they will take evidence again until Feb. 20th. The Commission will subsequently go to Poona, Satara, Belgaum, Sholapur, and Ahmednugar. They will embark for Europe on March 24th.

Mr. Jamsetjee N. Tata, a rich Parsee, is about to found an

Imperial University in Bombay with the special design to promote higher education in science and scientific and mechanical technology.

Jan. 7th.

## PROGRESS IN SANITATION AT DUBLIN.

(FROM OUR SPECIAL COMMISSIONER.)

DUBLIN has not borne a good repute when judged from the sanitary point of view. Old buildings, overcrowded and dirty, bad drainage, and a foul river, have all told their tale in high death-rates and frequent outbreaks of epidemic disease. But it is satisfactory to note that there are signs of improvement. Thus in the five years 1876–1880 the average death-rate of Dublin was 29·5. During the following five years, ending 1885, the average fell to 27·4, and from 1891 to 1895 there was a further decrease to 26·1. In 1897 there was an epidemic of measles and the zymotic death-rate then amounted to 4·5, though the zymotic death-rate, which during the ten years ending 1885 amounted to an annual average of 4·1, had in the following ten years fallen to an annual average of 2·62. The statistics therefore are distinctly favourable in so far as they show an improvement but the death-rate is still high. The fact is that some progress has been accomplished but a great deal still remains to be done. Thus, since the year 1879 the Public Health Department has been engaged in substituting water-closets for the old privies or cesspits. It was no easy matter to effect such a change; nevertheless it may be said that now very few cesspits remain. On the other hand, the closets are often in a foul condition and it is very difficult to induce the lower-class inhabitants to keep them clean. To meet this obstacle the Public Health Act provides that when two or more houses have a closet in common the inhabitants may be collectively prosecuted for not keeping it in proper order. Unfortunately this does not apply to single houses inhabited by two or more families. It is well known that closets used by several families are rarely clean and certainly each tenement should have its own closet. This principle has been practically applied at the Corporation Artisans' Dwellings, Bow-lane, where tenements, though they consist of but one room and are let at only 2*s.* per week, have each their own scullery and closet.

The introduction of water-closets has not, however, failed in Dublin as elsewhere to bring with it a whole list of grievances and necessitates therefore very constant and careful supervision. The borough sanitary engineer, Mr. John G. O'Sullivan, reports that a house-to-house inspection made in a great number of streets rendered it necessary to serve notices to remedy the drainage and sanitary arrangements in the majority of the houses. Though the drains were never more than twenty years old and many were of more recent date, still the levels were often incorrect and the pipes were not jointed. Frequently there was no interception between the house drain and the street sewer, and where this existed the ventilation consisted of only a two-inch lead pipe taken from the bend connecting the house closet with the soil-pipe. These latter pipes were very generally made of light metal and were not jointed. Other soil-pipes were ventilated in rain-water pipes which abutted close on a bedroom window. The faucets of the light metal pipes were too small to allow their being jointed with lead. Putty was therefore employed. So long as damp weather prevails the smoke test can be successfully applied, but after a dry summer the putty hardens and breaks away and then leakage becomes manifest. Many householders have been thus condemned though their drains were successfully tested a few months previously. Altogether in the course of a year action had to be taken in more than 3000 cases of defective drainage. Great pressure has also been brought to bear so as to ensure the insertion of interceptors between the house drains and the sewers. This is necessary not only so as to protect the houses from sewer air, but also to prevent the soil-pipes being used as rubbish shoots. This used to be a very general practice, and an extra flush or a bucketful of water would carry the rubbish into the sewer. When, however, there is an interceptor a stoppage soon occurs and then it is discovered that the soil-pipe has been used for the disposal of cinders and other household refuse. The result is that, though the number of closets draining into the sewers is increasing yearly, the sewers are cleaner and more free from heavy deposits than formerly. This is due to the more general use of interceptors, and their introduction has reduced the cost formerly incurred in cleansing the sewers.

The necessity of abolishing cesspits which so generally contaminate the subsoil and of rendering all drain-pipes absolutely watertight has been set forth in a striking manner by Sir Charles A. Cameron, superintendent medical officer of health of Dublin. He has caused special inquiries to be made concerning 4000 cases of typhoid fever in relation to the subsoil. It was then ascertained that the proportion of cases of typhoid fever was 50 per cent. more frequent in houses built on gravel than in houses built on the boulder clay. The fact is that the bacillus typhosus is aerobic and obtains oxygen far more freely in loose gravel than in stiff clay. In the gravel soil the germs can travel a long distance and freely multiply. Dublin has an excellent water-supply, the plumbing work is equal to that of other towns, and yet typhoid fever continues to prevail. It is therefore most urgent to prevent the contamination of the subsoil, especially if it is of sand or gravel, and in this respect Sir Charles Cameron informed me that within the last few years no less than 10,000 water-closets had been built. Nor are any clay or putty joints now allowed. These are preferred by the builders because, when necessary, the pipes can be disjointed and removed without breaking. In Dublin, as in many other large towns, the drainage of the poorer-class houses is often in better condition than that of the houses inhabited by wealthier people. This is due to the fact that the former are more frequently inspected. It is not so easy to find a pretext to test the drains of a high-class residence.

While the house drains have been frequently inspected and improved the main sewers have not been neglected. Some twelve miles of main sewers were recently surveyed, levelled, their condition examined, and more than 800 connexions with house drains inspected. That, however, these sewers are not self-cleansing is proved by the fact of the difficulty which arises with regard to their ventilation. The ventilators which terminate on the surface of the roadway have in a large number of cases, the engineer reports, been the cause of much complaint, more especially in narrow streets and avenues. If the sewer was clean—that is, if it did not contain any deposits—it would not occasion a perceptible odour. It is when the receding water leaves these deposits bare that the greatest nuisance arises. But the fact is that formerly sewers were not built on self-cleansing principles; and even to-day these exist only in exceptional instances. To prevent sewer air reaching the street in such a condition as to create a nuisance Sir Charles Cameron has invented a dome-shaped hood made of porcelain clay and plaster-of-Paris. This is placed over the ventilator outlet and absolutely prevents any sudden gust coming up. The air can only filter through slowly and it seems to lose its objectionable odour in the process. This certainly does away with the apparent nuisance, but this is not a sufficient reason to recommend the invention. No good purpose is served in merely masking a bad odour. The real object of perfect sanitation is to remove the cause that gives rise to the odour, and till this can be done such foul emanations as do exist had better escape into the street. The question arises whether this sewer-air filter really deodorises the air or only lets it through so slowly and in such small quantities that the odour becomes imperceptible. Whatever may be the answer to this question the next point is, What happens to the pathogenic germs, if any? Are they retained inside the filter? and if so should they be thus retained and imprisoned? Is that the true method of getting rid of them? But supposing that the filter is satisfactory from the bacteriological point of view, does it not impede the ventilation of the sewers? It is necessary to bear in mind that the prevention of a bad odour is but the secondary object; the first and most essential necessity is thoroughly to ventilate the sewer. The atmosphere of the sewer does not, however, obligingly force its way through apparatus placed on purpose to receive it. Sewer air invariably makes for the line of least resistance. This is why the charcoal or coke trays have fallen into disuse. Doubtless they would have answered their purpose very well but for the fact that the sewer air instead of coming through them often found an easier exit by some leakage or an untrapped or insufficiently trapped soil pipe. Considering that the construction of the main sewers, of the branch drains, the joints of the pipes, &c., is not yet perfect, such an obstacle as a porcelain air-filter placed over the sewer ventilator may, while preventing perceptible

odours in the street, increase the amount of sewer air which enters the houses. Such a contrivance may render good service, but only on condition that the sewer and its ramifications are absolutely air-tight in all other directions.

One very great improvement will be realised in the course of about two years. The numerous sewer outfalls into the Liffey will all be abolished. A loan of £350,000 was sanctioned for the extension and amelioration of the main drainage of the city. A main collector is in course of construction to carry all the sewage to Pigeon House Fort where it will be received in large tanks and treated chemically. The heavy sludge will be taken out to sea in tank boats, and the effluent discharged into the bay when the tide is running out. The addition of two powerful pumps will insure the continued flow of the sewage in all conditions of the tide. Thus in any case the Liffey will no longer be contaminated by the raw sewage of the town.

By far the most difficult problem in Dublin is that of the housing of the poor. There are some 32,000 families living in 48,000 tenement rooms. There is very little work for these people to do, for there are comparatively few industries in Dublin. Model artisans' dwellings have been constructed, many philanthropic efforts have been made—notably by the late Mr. Peabody and by Lord Iveagh—but the people who most need to live in better houses are unable to pay the rents charged in these model dwellings. What is really wanted is better employment for some 20,000 people. How can families who often do not earn 10*s.* a week pay 4*s.* 6*d.* for rent? The result is that the model dwellings are inhabited by the better class of artisans and the slums remain in the same deplorable condition. The matter, however, has not been left solely to the 5 per cent. philanthropists. The corporation has itself built some model dwellings and here tenements are to be had at 2*s.*, 1*s.* 9*d.*, and even as low as 1*s.* 6*d.* a week. Unfortunately there are so few of such tenements at present that they have not materially affected the situation. The private landlords who let rooms to the poor are for the most part only leaseholders or yearly tenants. They cannot under these conditions spend much on improvements. It would not pay them to provide proper accommodation for 1*s.* or 2*s.* a week. But this is possible for a municipality which can borrow money at a very low rate of interest and is not hungering after large profits. The borrowing powers of municipal authorities, as Sir Charles Cameron points out, are, however, limited to two years' valuation of the town for rateable purposes. This was a very wise provision when the money borrowed was only spent for unproductive purposes, such as, for instance, parks, sewers, &c. But slaughter-houses, markets, artisans' dwellings, &c., bring in good and reliable revenues, and it is claimed that for such purpose the powers of borrowing should be extended. In any case, the position stands thus: either the powers of the municipality must be extended so that it may be able to supply a very large number of tenements at from 1*s.* to 2*s.* per week rental, or else new industries must be started providing more work and better pay for many thousands of people. Short of this it is difficult to see how overcrowding and insanitary conditions can be prevented.

## MANCHESTER.

### (FROM OUR OWN CORRESPONDENT.)

*The Hulme Sewer Fatality.*

THE fourth sitting of the Manchester City Coroner's Court brought to a conclusion the inquiry into the cause of death of two men, John McGregor and W. C. Hodgson, who were suffocated in a sewer in December last. The occurrence was mentioned in an annotation in THE LANCET of Dec. 24th. The result is not altogether satisfactory. The evidence showed that in one case a connexion had been made between a drain from certain works and the main sewer which had never been notified to the corporation. Dr. Bailey, assistant lecturer on chemistry at Owens College, said that "in his opinion the gas" (presumably sulphuretted hydrogen) "must have been discharged into the sewer in a perfectly pure state and must have travelled two miles before it got to Walcombe-street and that the men were killed by a sudden rush of gas." Mr. Thomson, the chemist, said there was a considerable quantity of acid in the sewer and that where they found sulphuric acid there was a strong smell of naphtha and benzoline. He had taken samples at different times "and found that on the morning of the 22nd December in one outburst 232½ lb. of acid came down." Other evidence was given showing that in some way or other a larger quantity of deleterious matter got into or was turned into the sewers but from which of various works it came was apparently not capable of proof. The coroner said that it was an offence to put into sewers gas or chemicals which might be injurious to health. The police confessed that they had failed to get definite evidence as to the source of this poisonous gas. The verdict was that the deaths had been caused by poisonous gas, but there was not evidence enough to fix the responsibility on any particular person or firm and they trusted that the Corporation officials would "examine with increased vigilance the effluent from works known to be producing dangerous substances." There are too many of these sewer accidents, as they are called; many occur which are not quite fatal and are not heard of. They are not accidents but are the natural result of a disregard for consequences and, we must suppose too, of the low estimate put on the lives of the men who work in the sewers by the proprietors or the managers of such works.

*Ladies' Health Society.*

The annual meeting of this most useful society was held in the Manchester Town Hall on Jan. 17th under the presidency of the Lord Mayor. Though its work may be thought slow and tedious and though "the teaching little by little and with oft-repeated iteration the elementary laws of domestic sanitation" may be long in leavening the dense mass of apathy and ignorance as to matters affecting health which prevail among the many thousands of the working population of Manchester and Salford, it is yet one of the best possible agencies for bringing about a gradual improvement in their knowledge of the art of living. The women of the working population have practically all domestic sanitation in their hands so that the best way of ensuring cleanliness of house, clothing, and person with efficient ventilation is to secure their interest and intelligent help. It is a work of house-to-house detail and must, to be of much use, be so carried out as not to wound the sensitive pride of the poorer classes, and on the whole this is fairly well achieved. "The health visitors, being superior women belonging to the class among whom they work, have a fellow feeling and a more thorough understanding of the difficulties, the needs, the failings, and the sorrows of the poorer classes than women brought up in greater refinement and luxury would have. The lady superintendents strengthen and supplement this by an element of outside freshness, by wider views, help of various kinds, support and cheer for the health visitors, and sympathy for all." The society is in the unwonted position for a charity of having a moderate balance in hand, but lady voluntary helpers are wanted. "There were districts in Salford ready to be taken up; the funds were provided and for these they wanted lady superintendents." The Lord Mayor testified to the good work of the society among "the poorest of the city" and to its working in harmony with the corporation, by whom 9 of the 16 visitors in Manchester are provided. Dr. Leech, Dr. Niven, and others spoke. The Rev. J. E. Mercer mentioned the work in Angel Meadow which, in contrast to its name, is one of the worst places in the city and said "the society was on the right track of slow and steady leverage at a huge mass which had to be lifted and could only be lifted by methods such as those used by the Ladies' Health Society." Manchester is no doubt typical of many other towns and it would be well if similar societies were at work through the country.

Jan. 25th.

## SCOTLAND.

### (FROM OUR OWN CORRESPONDENTS.)

*Urban Mortality in Scotland in 1898.*

A SUMMARY of the particulars in the Registrar-General's monthly returns as to the eight principal towns of Scotland (the issue of which series for last year has just been completed) shows that in 1898 there occurred in these towns collectively 32,153 deaths, which for an estimated population of 1,568,536 gives a death-rate for the year of 2·05 per cent. This is a decrease upon the general rate for the previous year which amounted to only 2·12 per cent. of the inhabitants, being an exceptionally low figure. Of

the 32,153 deaths 15,333 occurred in Glasgow, 5796 in Edinburgh, 3460 in Dundee, 2682 in Aberdeen, 1362 in Leith 1584 in Paisley, 1308 in Greenock, and 628 in Perth; and the individual death-rates in these respective towns were as follows, beginning with the lowest:—Leith, 17·85 per 1000 of the population; Aberdeen, 19·10; Edinburgh, 19·60; Perth, 20·50; Paisley, 20·97; Dundee, 21·02; Glasgow, 21·17; and Greenock, 21·38. The deaths of children under five years of age numbered 12,753, the aggregate infantile mortality being thus 39·6 per cent. of the total deaths. In every 100 deaths in Perth 26·2 were of children under five years of age, in Edinburgh the percentage was 32·3, in Greenock it was 37·8, in Paisley it was 38·5, in Leith it was 40·2, in Abereeen it was 40·3, in Dundee it was 42·0, and in Glasgow it was 42·6. Of the 12,753 deaths of children under the age of five years, 7756 were those of children under one year of age. Of the aggregate of 32,153 deaths, 5004 were due to specific febrile or zymotic diseases, 10 to parasitic diseases, 145 to dietetic diseases, 6057 to constitutional diseases, 2276 to developmental diseases, 16,140 to local diseases, 1235 to violence, and 1286 to ill-defined and not specified causes. To speak more particularly as to the causes of death, 3497 deaths were due to miasmatic diseases, 3601 to diseases of the nervous system, 2775 to diseases of the circulatory system, and 6004 to diseases of the respiratory system. With regard to the zymotic diseases, there were 2 deaths from chickenpox and 1 from small-pox, 914 from measles, 389 from scarlet fever, 28 from typhus fever, 336 from influenza, 1198 from whooping-cough, 252 from diphtheria, and 350 from enteric fever. There were also 1074 deaths from diarrhœa. The deaths from measles were most marked in Glasgow from January to May inclusive, in Dundee in June and July, in Paisley in May and July, and in Aberdeen in December. Fatal cases of whooping-cough were most marked in Glasgow from January to May inclusive and also in August and October, in Paisley from January to July inclusive, in Aberdeen in April, August, September, and October; in Greenock in January, February, and October; in Perth in August, in Leith in December, and in Edinburgh and Dundee in April. Enteric fever was marked in Paisley in September and November, and scarlet fever in Greenock in January and December. Influenza prevailed in Edinburgh in March and April, in Paisley in March, and in Dundee and Perth in April. The deaths from zymotic diseases in the eight towns collectively were 10·9 per cent. of the total deaths, as against 15·3 in the preceding year. In the eight towns together there were last year 2735 deaths from pneumonia, 2590 from bronchitis, 2985 from phthisis, and 2123 from endocarditis. The mean temperature of the eight towns in 1898 was 48·9° F., and the mean total rainfall was 35·08 in. Appended to the returns are particulars as to forty-four other towns with a united estimated population of 713,488, the individual populations ranging from 48,320 to 2324 and fourteen of the towns being above 20,000. The aggregate mortality in these forty-four towns last year was 13,111, or 1·84 per cent. of the estimated population, which is less than the rate for the eight principal towns together. Of the deaths there were 4 from chicken-pox, 395 from measles, 169 from scarlet fever, 356 from whooping-cough, 80 from diphtheria, 199 from fevers (typhus and typhoid), 5 from cholera, 671 from diarrhœa and dysentery, 64 from croup and laryngitis, 2255 from bronchitis, pneumonia, and pleurisy, and 1346 from consumption.

*Physical Training in Scotland.*

A good deal of interest has been aroused in Edinburgh and other places throughout Scotland by the publication of two letters from General Chapman. The first was sent to School Boards and advocated the physical training on the army model of the pupils attending the schools and the establishment of gymnasia. The second has been addressed to the Lord Provost of Edinburgh and advocates the formation of schools-at-arms and of public gymnasia for the physical training of our youths. All schemes which have as their object the physical well-being of the youth of the land commend themselves to the profession, and interest in physical training is not only good in itself but adds an interest to the life of young men which acts as a considerable preventive. The warm advocacy of these schemes by General Chapman will, there is little doubt, bear some fruit.

*Edinburgh Dental Hospital School.*

The annual meeting of this institution was held on Jan. 23rd under the chairmanship of the Lord Provost. From the report it appears that during the year the number of cases of conservation dealt with was 7234; the extractions numbered 11,600 teeth; the number of persons to whom anæsthetics was administered was 959, of whom 293 were given chloroform, 620 nitrous oxide gas, and 46 nitrous oxide and ether. The number of students on the roll was 55, of whom 23 were in their first year. There was still a debt of £2000 against the institution.

*Out-patients at the Edinburgh Royal Infirmary.*

It is worthy of note that the serious attention of the managers of the Edinburgh Royal Infirmary has been drawn to the increase in the number of out-patients. The committee of contributors expressed their belief that a considerable number of patients who could well afford to pay for medical advice were taking advantage of that department. This question has hitherto been shunned and it is certainly noteworthy that the complaint comes from the management and not from the honorary staff.

*Proposed Additions to Leith Hospital.*

The directors of Leith Hospital have now matured plans to meet the views of the committee who have charge of the scheme for commemoration of the Queen's Diamond Jubilee, so that the scheme will probably take practical shape in the course of a few months. The proposed extension will allow of an increase of 27 beds in the King-street Pavilion and the hospital when completed will contain 102 beds and 3 isolation rooms. There will, moreover, be erected in addition a new kitchen, laundry, and nurses' home. The kitchen and laundry will be provided with steam-power. The nurses' home will accommodate nearly 30 nurses. The Diamond Jubilee Fund amounts to only about £5000, whereas the total cost of the new buildings, including machinery and plant, will amount to between £17,000 and £20,000.

*St. Andrews University.*

The installation of Mr. James Stuart, M.P., as Lord Rector took place on Jan. 23rd. At the same time honorary degrees were conferred on various persons, Sir William Broadbent, as representing medicine, and Mr. Buckle, editor of the *Times*, as representing the press, receiving the degree of LL.D.

*Glasgow Microscopical Society.*

The society met on Jan. 17th to hear a lecture on "The Development of the Heart" by Mr. J. F. Gemmill, M.A., M.B. Glasg., Lecturer on Embryology in the University. After a preliminary comparison of the circulatory mechanism in the various groups of the vertebrate series Dr. Gemmill described in detail the development of the mammalian heart and its various parts. He remarked upon the anticipatory character of the appearance of some of the parts when the organ was regarded from a physiological point of view, showing how in several respects stages of structure were reached in advance of physiological requirement. The generalisation of Haeckel that every animal in its individual development exhibits an epitome of the stages through which the genus has been evolved was criticised in detail with a somewhat adverse conclusion though its value both in the study of embryology and as an aid to classification was allowed. The President, Dr. James Rankin, proposed a vote of thanks to the lecturer and this was heartily accorded.

*Royal Infirmary, Glasgow.*

A movement to promote the election of two ladies to the board of management of the Royal Infirmary has now taken definite shape and at the forthcoming annual meeting it is understood that Mrs. J. W. Napier and Mrs. G. R. Mather will both be nominated. At the last annual meeting of the Western Infirmary a similar resolution was submitted and was only withdrawn on an official undertaking to consider the question.

Jan. 25th.

## IRELAND.

**(FROM OUR OWN CORRESPONDENTS.)**

*Dublin Orthopædic Hospital.*

THE annual meeting of the governors and subscribers to the Dublin Orthopædic Hospital took place on Jan. 18th, under the presidency of the Right Hon. Lord Justice Walker. The report, which was read, showed that the institution was

in a most satisfactory condition and that what it most required was enlargement. A lease of ground adjoining the hospital in Great Brunswick-street was acquired in March last, but it is now likely that the Corporation of Dublin will succeed in a compulsory purchase of this plot as a site for a fire-engine station. In that event some other plan must be adopted for the enlargement of the hospital. A vote of thanks to Lord Justice Walker was proposed by the President of the Royal College of Surgeons in Ireland who is one of the medical staff of the hospital.

*Royal University of Ireland.*

A meeting of Convocation of the Royal University of Ireland was held in the University buildings on Jan. 19th, the Rev. Dr. Hamilton, President of Queen's College, Belfast, occupying the chair. The following members were unanimously re-elected representatives on the Senate: Sir William Thomson, M.A., M.D. R.U.I.; His Honour James J. Shaw, M.A.; Dr. Thomas Sinclair; Mr. Edward Cuming, M.A.; and the Rev. M. Leitch, M.A.

*Action for Libel by a Medical Man.*

The medical officer of the Glenties Dispensary, County Donegal, has recently brought an action against some members of the Dispensary Committee and the proprietor of the *Londonderry Sentinel*, jointly and separately, for libel alleged to be contained in a resolution passed by the Dispensary Committee. An application was made in the Queen's Bench Division, Dublin, on Jan. 22nd, before Mr. Justice O'Brien and Mr. Justice Gibson on the part of the defendants to change the venue from Dublin to Donegal, in which county the cause of action arose. There was a very strong muster of eminent members of the Bar, but although Mr. Drummond, Q.C., in opposing the motion stated that the charges made against his client were of a startling character, the application was granted and the case will be tried at Donegal.

*Belfast Royal Hospital.*

At the annual reunion of the committee of the working men in connexion with the Royal Hospital, it was reported that the amount of subscriptions received during the past year was the largest on record since the formation of the working men's committee—viz., £2534 1*s.* 11*d.*—in addition to £50 received from the employés of the Belfast Street Tramways Company, making the total amount received £2584 1*s.* 11*d.* The committee, which meets in the Board-room of the hospital once a fortnight, is composed of representatives from the different firms whose workers contribute to the funds of the hospital and are elected from amongst themselves by the subscribers. Each member is appointed in turn to act as orderly whose duty it is to visit the hospital at stated intervals and to report the result of his visits. By this means the committee say that they have succeeded in retaining the confidence of the people whom they represent in the management of the hospital. The committee tender their best thanks to the medical staff for the very efficient services rendered to the patients placed under their care.

*Nursing in Workhouses in Ireland.*

At a meeting of the Lurgan Board of Guardians held on Jan. 19th a letter was read from the Local Government Board on the subject of hospital nursing, intimating that it was proposed to prescribe that a qualified nurse must have been two years in a recognised clinical hospital and have obtained therefrom a certificate of proficiency in trained nursing. Such certificate would be admissible from a clinical hospital only, unless the nurse had been trained in a non-clinical hospital having at least 150 beds and possessing a resident surgeon and two visiting surgeons and unless the nurse had attended lectures and received a course of instruction in the nursing of contagious diseases. Dr. Darling (surgeon to the Lurgan Union Infirmary) said that he had a note from Mr. Stafford (Medical Commissioner of the Irish Local Government Board) saying that the definition of a trained nurse now laid down would only apply to nurses drawing half salaries from Government, but the qualifications were framed to exclude workhouses as training grounds. The Lurgan probationers would be recognised as charge nurses, but not as nurses entitled to receive the proportion of Government salary. The Local Government Board was establishing two classes of nurses, a superior and an inferior. There were only two workhouses in Ireland (Belfast and Dublin) which would come up to the recognised standard, and he trusted that public opinion would be brought to bear on the matter and that the Local Government Board would change its mind. The guardians agreed to appeal to the other Poor-law boards in Ireland on the subject.

*The Conscientious Objector.*

The first application made in Belfast for exemption under the new Vaccination Act took place in the Summons Court of that city on Jan. 23rd, when a man applied for an exemption certificate as he had a conscientious objection to have his child vaccinated. The resident magistrate said he had no power to grant a certificate, and the clerk of the court pointed out that the Act did not apply to Ireland or Scotland. In this dilemma the applicant inquired what redress had he, to which the clerk gave the very significant reply: "The only redress you have is to get your child vaccinated." On the suggestion of the resident magistrate the applicant said that he might probably go to England which apparently is the special El Dorado of the conscientious objector.

*Medical Men and the New Urban and County Councils.*

The Local Government Board have just made an order that no paid officer engaged in the administration of the Poor Relief (Ireland) Acts, 1838 to 1898, shall be eligible to serve as a county councillor under the Local Government (Ireland) Act, 1898. If this applies to county borough councillors, as it appears it does, it is said that it will disqualify two gentlemen who have been elected members of the Belfast Corporation—Alderman Bigger, M.D. R.U.I., who is physician to the Union Fever Hospital, and Dr. Barron, who is dispensary medical officer. The Local Government Board should have made a clear pronouncement on this question before the elections.

*The Urban District Councils.*

The new urban councils under the recent Local Government (Ireland) Act have just been elected and are settling down to work. In Lisburn Mr. St. George has been elected chairman and in Newry Mr. McCartan, J.P. At Ballymena notice of motion was given that immediate steps be taken to obtain an abundant supply of water to the town, and at Bangor, after a long discussion on the same subject, a committee was appointed to take the matter of the water-supply into consideration and to report from time to time to the board. Mr. Moore, one of the newly-elected councillors, is on this committee.

*Election of Medical Officers at Rathdown Union.*

The principal business which came before a very large meeting of the Board of the Rathdown Union, which took place on Jan. 11th, Lord Powerscourt being in the chair, was the election of a medical officer to the workhouse. There were no less than eleven candidates for the appointment, to which Mr. Pim was ultimately elected after many ballots.

Jan. 24th.

## PARIS.

**(FROM OUR OWN CORRESPONDENT.)**

*The Plague.*

AT the meeting of the Academy of Medicine held on Jan. 10th Professor Proust, the Inspector-General of the Sanitary Department, read a long report on the Geographical Distribution of Plague in Asia and Africa and referred to the dangers which would arise from an extension of the malady to Europe. He reminded his hearers that the Venice Convention of 1897 had drawn up a set of regulations which should have the effect of protecting Europe from the danger of propagation of the Indian plague. Unfortunately, however, some of the measures adopted had not been carried out in their entirety, while others had never been acted upon at all. With regard to the question of the spread of plague by means of laboratories, as had recently happened in Vienna, strict precautions to avoid this happening again had been taken in every country. In France, for example, a commission composed of MM. Roux, Duclos, Brouardel, and others has just proposed to the Government a number of very strict regulations to apply to all laboratories. These regulations provide that no one shall be allowed to remove cultures from the precincts of the laboratory and that even within the laboratory they shall only be handled by trained workers under the personal surveillance of the chief who shall also be responsible for the work. As to international measures the question is far more delicate, and M. Proust lamented that certain nations for fear of putting obstacles in the way of their trade only carried out inspection and

disinfection in a very perfunctory fashion. He recalled to mind the possible epidemics which might have broken out in London owing to the arrival in that city of infected persons who had escaped the inspection organised on the Suez Canal. Thanks to the energetic measures taken by the sanitary authorities of London nothing untoward occurred. It was, however, by no means impossible that if more care were not taken at Suez the plague would one day overleap the barriers provided against it and establish itself in Europe. M. Proust cited the case of the *Caledonia* of the Indian Mail Service. After reflecting severely upon the conduct of various sanitary authorities and officials with regard to this vessel M. Proust mentioned the instance of the *Golconda* and the *Mahallah*. M. Proust concluded by earnestly appealing to the sanitary authorities of every country to demand of their respective Governments that no infractions of the rules of the Venice Convention should be allowed merely in the interests of commerce.

*The Use of Blue Glass in the Diagnosis of Syphilis.*

At the meeting of the Society of Dermatology and Syphilography held on Jan. 12th M. Jullien said that since the year 1895 he had been in the habit of employing blue glasses as an aid to the diagnosis of syphilitic eruptions. He uses a simple binocular fitted with lenses made of cobalt blue glass. Only a moderate amount of light is necessary and the practitioner must remember that all the red and yellow rays are cut off. Owing to this the field is uniformly blue and the matter resolves itself into differences of tint in the depth of the blue colouration. This method is valuable for the diagnosis of eruptions even before they are visible to the naked eye and also for the diagnosis of aborted eruptions. M. Jullien does not affirm that one can absolutely diagnose syphilis in this way by one examination, but he insists on the necessity of many and long-continued observations. Weeks, months, sometimes even years after the disappearance of a syphilitic rash a blush remains visible by means of the blue glass, showing that the skin is still impregnated with germs and pointing to the necessity for continuing treatment. Those spots which might be considered as fresh are really only the outcome of the original eruption. This method is not only useful in the diagnosis of tertiary syphilis and the scars left by it but also in the pathological anatomy of that disease.

*Hygiene for Barbers.*

At a recent meeting of the Council of Hygiene and Public Health of the Department of the Seine M. Bezancon, head of Division 2 of the Prefecture of Police, read a communication from M. Dupuy, head of the Ministerial Council, dealing with the use of lotions for the hair made upon an ether or light petroleum basis. Professor Bourgoin, in accordance with a regulation put forward by the Council of Hygiene, had laid before the Minister a report dealing with the dangers accruing from the use of these preparations. The Consulting Hygienic Committee of France, to which body the matter was referred, reported in its turn on the dangerous nature of of these lotions and pointed out that they did not possess the properties attributed to them. The Minister therefore decided that the use of these preparations should be checked and that the best way was to make use of the Hairdressers' Association as an intermediary to point out to the trade the dangers of these lotions, dangers which were not accompanied by any compensating advantages. The hairdressers, whose interest it is to give satisfaction to their customers and not to expose them to risks, at once agreed to the demands of the Minister. In thus prohibiting the use of lotions made with light petroleum the Administration has acted as it should do in its capacity of being responsible for the public health, and if accidents should happen in future the Administration will at all events be free from blame.

*The New Sanitary Department at Frioul.*

The new sanitary station at Frioul, near Marseilles, has just been fitted with as perfect a plant as possible. A wooden landing stage permits all merchandise to be rapidly loaded or landed. The landing stage is divided into two sections, each furnished with an up and down railway for waggons. One-half is for the landing of infected goods and the other for the loading of those which have been disinfected. Bales, cases, and baggage of all kinds are lifted on to the stage by cranes capable of handling a weight of 1200 kilos. They are then carried by the goods waggons to a large disinfecting shed where by means of an ingenious system of tubes they are saturated with disinfectants. Goods suspected of being particularly dangerous go through two stoves at the end of the shed. After these operations the goods are carried down to the wharf used for disinfected goods and are then loaded into the ship which brought them. Identical measures are taken for the disinfection of passengers. The disinfecting cabins are divided into three: in the first the passenger undresses and his clothes are promptly taken to the stoves where they are disinfected; in the second the passenger is douched; and in the third he gets his clothes back and is allowed to dress.

Jan. 24th.

## BERLIN.

**(FROM OUR OWN CORRESPONDENT.)**

*Catheterisation of the Ureters.*

THE subject of catheterisation of the ureters has recently been discussed by the Berlin Medical Society and has led to a series of very animated debates extending over several meetings. Dr. Casper reported 3 cases where a good result was obtained by this procedure. In the first case the patient was a man in whom total anuria had been caused by incarceration of a calculus in the ureter, but after catheterisation and injection of sterilised oil the calculus was discharged. In the second case the patient was a woman, twenty-eight years of age, suffering from severe pyelitis, from which she recovered after catheterisation and the injection of a 1 in 1000 solution of nitrate of silver. The third patient was a man, thirty-four years of age, having a tumour of the right hypochondriac region which at first was believed to be an echinococcus cyst, but on puncture was found to be the enlarged pelvis of the kidney and by catheterisation of both ureters it was ascertained that the urine from the right kidney was purulent whilst that from the left was normal. Catheterisation and injection of solution of nitrate of silver caused fever, but nevertheless after a series of injections the pyelitis disappeared and the urine became normal. Dr. Casper pointed out that in cases where a free communication existed between a renal abscess and the pelvis of the kidney injections of nitrate of silver may be able to effect a cure. Moreover, extirpation of a kidney ought not to be performed until the soundness of the other kidney had been ascertained by catheterisation. Dr. Casper's views were strongly opposed by Professor Israel who in a very detailed statement warned his hearers against attaching too much importance to this procedure. In 81 operations for pyonephrosis performed by him there were only 3 in which catheterisation of the ureters might possibly have been of any use. His general conclusions were (1) that catheterisation gave little or no information as to the condition of the second kidney when nephrectomy was contemplated, as under certain conditions normal urine may be passed by the catheter although the kidney is seriously affected; (2) that affections of the second kidney were not in every instance contra-indications of nephrectomy; (3) that catheterisation was unable to ascertain the presence or the nature of an obstacle; (4) that the presence of blood in the urine obtained by catheterisation might either be due to hæmorrhage from the kidney or to injuries produced by the catheter; and (5) that the operation is liable to produce infection. In the ensuing discussion Dr. Kutner emphasised the impossibility of obtaining sufficient sterilisation as the optical apparatus was liable to be destroyed by the application of steam. Dr. Landau said that in gynæcological operations, as for instance in extirpation of the uterus for carcinoma, &c., the method was useful as a means of avoiding injury to the ureter. Of the other medical men taking part in the discussion Professor Litten and Dr. Wossidlo opposed the method, whilst Professor Posner, Dr. Mainzer, and Professor Dührssen expressed a more favourable opinion.

*The State Examination in Medicine.*

An Imperial Commission composed of delegates from the different states of the empire recently met in Berlin to discuss alterations of the State examination. It is by passing this examination, as the readers of THE LANCET will remember, that medical students obtain their qualification to practise in Germany. The principal and most important paragraph of the Commissioners' resolutions is the recommendation that the preliminary examination (*Abiturienten-examen*) passed at a "gymnasium" shall be obligatory

on students of medicine. By this attitude the hopes of those who plead the cause of the "realgymnasia" have been disappointed. In the "gymnasia" the study of the Greek and Latin languages is preponderant, whilst in the "realgymnasia" modern languages, physics, &c., are the principal subjects. A classical education will therefore continue to be an essential condition of entering on a medical career. The Commissioners recommend that the medical curriculum should be of at least five years' duration, whereas hitherto four and a half years have been sufficient, and that this time should be spent at universities of the German Empire exclusively; under certain circumstances a portion of the curriculum may be taken in foreign universities. It is proposed that the examination in anatomy and physiology, which according to the present regulations takes place twice—viz., at the first and the second professional examinations, shall henceforth be removed from the State examination and be wholly included in the first professional examination (*tentamen physicum*). It is also recommended that the subjects of examination shall be: general pathology and pathological anatomy, pharmacology, clinical medicine, surgery, gynæcology and obstetrics, diseases of the eyes, diseases of children, mental diseases, and hygiene; foreigners to be subject to the same conditions as Germans. The resolutions of the Commission are of course of a preliminary character only and have to be sanctioned by the Federal Council which is the only authority competent to give a final decision. The German members of the medical faculties of Switzerland have availed themselves of this opportunity to ask the German Government to establish a certain amount of reciprocity in the qualifications of both countries. They especially desire that the testimonials of Swiss and German universities may be of equal value, so that German students may be able to take their curriculum in Switzerland without losing a portion of the assigned time. Swiss medical men would like to hold appointments in German universities not only in laboratories and similar teaching institutions, but also in clinics and university hospitals for which a medical qualification is required. It is not probable that the Government will agree to meet the wishes of the Swiss professors as the number of native candidates for vacant places is great enough to make the coöperation of Swiss medical men unnecessary.

### *The Medical Courts of Honour.*

In the speech from the Throne by which the present session of the Prussian Diet was opened a Bill relative to medical courts of honour was announced. This matter, to which allusion has already been made in the columns of THE LANCET, has been discussed at great length in the medical chambers as well as in the different associations of medical practitioners. The opinion of the profession was divided as to the advisability of this measure, but the Government has resolved to bring the matter to an issue. Owing, however, to the great amount of business claiming the attention of the legislature it is very uncertain whether the Bill will be passed or even discussed before the session is closed.

### *The late Professor Gurlt.*

Professor Gurlt, who died in Berlin on Jan. 8th, is universally regretted by the medical profession and especially by its surgical branch. Although engaged in surgical practice for a very short time he contributed largely to the science and history of surgery. As permanent secretary of the German Surgical Association he had to make the arrangements for the annual meetings of this important society and to publish its proceedings. During the last few years he had the management of the collective investigation on anæsthetics. He was one of the founders and principal members of the German Red Cross Association and long before the foundation of this society called public attention to the necessity of greater care being taken of sick and wounded soldiers in war-time. His name will always be famous as one of the historians of surgery. Scarcely a year before his death he published his great work on the "History of Surgery during the Middle Ages and the Renaissance," the result of more than ten years' study. The deceased was extremely modest and unostentatious and not widely known to the general public, but he enjoyed great popularity in medical circles. Professor Gurlt was the editor of the *Archiv für Klinische Chirurgie* and co-editor of the Virchow-Hirsch *Jahresbeiträge*.

Jan. 23rd.

## ROMF.

**(FROM OUR OWN CORRESPONDENT.)**

### *The Health of Leo XIII.*

GIBBON ironically congratulated himself on the number of clergymen whom he had been the means of promoting by "replies" to his famous thirteenth and fourteenth chapters. In like manner the reigning Pontiff may contemplate with satisfaction the many journalists whom he keeps alive by reporting on his health. This latter is really an "industry," if we may judge from the rapidly recurring paragraphs on "le salut du Pape," or "la salute del Papa," or "die Gesundheit des Papsts," which throng the European press when contemporary affairs are slack or wanting in interest. If the official journal of the Vatican—the *Osservatore Romano*—fails to chronicle the usual audiences or receptions its silence is at once the signal for the familiar paragraph in which the word "deliquio," or "défaillance," or "Ohnmacht" is sure to appear, according to the reporter's nationality. The week has just closed with an unusually pronounced crop of these newspaper exanthemata or (fitter phrase) journalistic "rash." On inquiry the condition of his Holiness is found to resolve itself into a cold in the head, an ailment not unknown even in mid-winter and in a hard-working ecclesiastic verging on ninety years. The facts are these. Dr. Lapponi on the morning of Jan. 18th advised his august patient to keep his bed, as he was certainly suffering from a "raffredore di testa" which, in spite of every precaution, he had contracted in this abnormally inclement season. His Holiness did so and the next morning felt distinctly better. On the 20th he still kept his bed by Dr. Lapponi's advice, although all the symptoms (coryza, gravedo, febricula) had completely gone. Since Thursday last Dr. Lapponi has visited him three times daily instead of three times weekly, as is his ordinary custom, but the statements that the illness has been grave, necessitating Dr. Lapponi's spending entire nights at the Vatican, are wholly untrue. On the contrary, that exemplary consultant is not in the least alarmed at the condition of his Holiness whom he quite expects to be able next week to resume the suspended audiences—the reception of the clerical aristocracy and of the Princess of Sweden which had been fixed for Jan. 19th. One effect of these "statements on the best authority" or "announcements in well-informed circles" is greatly to add to Dr. Lapponi's occupation. Till two in the morning of yesterday he was incessantly called to the telephone to satisfy the representatives of foreign Powers and other diplomatic agents who importuned him for "information" confirming or contradicting the pessimistic paragraphs of the Continental journals.

### *The Academic "Insurrection."*

The phrase is official and it appropriately describes the undergraduate mutiny and rioting of which the Universities of Palermo and Naples have just been the scene. At the former of these seats of learning the students, indignant at not getting their own way in the matter of examinations, "demonstrated" in characteristic fashion and from angry words proceeded to violent deeds, smashing the windows, the lamps, and the class-room furniture. At Naples the Sicilian outbreak had its replica and for some days his Excellency the Minister of Public Instruction (Dr. Baccelli) has been doing his utmost to restore order and induce a *modus vivendi* between the undergraduates and the professorial staff. He has not succeeded. On the contrary, he has had to issue a telegram sanctioning the temporary closure of these universities—a step taken by their Rectors and their Consiglio Academico. He further commands these authorities to announce publicly to the students that "they have lost the summer session examinations," and also to inform the young men's parents and guardians that if, on the reopening of the universities, the disturbances are renewed the entire academic year will be irrevocably sacrificed. He concludes by ordering the same authorities to assure the young men that as soon as the damage they have done to property has been ascertained they will be made to refund the equivalent in money under legal penalties. This is clear, direct admonition, and it ought to have the desired effect. But, unfortunately, the evil has its roots too deeply ramified in the Italian idiosyncrasy and academic tradition to give hope of its speedy or final extirpation. The

whole undergraduate life in these southern nationalities is so different from the sober (or, as they consider it, sombre) English habits. The students (the bulk of them not much advanced in their teens) pose as precocious men, mix themselves up in contemporary politics, and seem bent on qualifying as future Cleons or Gracchi rather than as useful citizens in the professional sphere. They have the "mania contionabunda" developed prematurely, most of them being glib speakers or suffering from what Professor Pillans of Edinburgh used to call a "determination of words to the mouth." With such tastes and "distractions" they neglect their work and are continually demanding "extraordinary sessions" for "extraordinary examinations" to make up for their having let slip the opportunities open to them in the regular academic year. These demands have been so often conceded that they have come to be claimed as rights, to the prejudice of sound discipline and solid acquirement. Unfortunately, too, these precocious politicians have sympathisers in the Chamber of Deputies who aid and abet their young clients by making themselves troublesome to the Minister of Public Instruction for the time being, and so the wretched system tends to assume more formidable proportions from year to year. The lay press is alive to the serious consequences of this perversion of academic life and insists on a sterner vindication of authority on the part of the university heads. A beginning has just been made towards this consummation by his Excellency Dr. Baccelli's mandate to the Rectors and professorial staffs of the Neapolitan and Palermitan schools, and if the Cabinet to which he belongs holds together long enough—not a sanguine outlook in Italy any more than in France—he may be expected to work a salutary reform in his country's academic system.

Jan. 21st.

## AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

*Introduction of Bacilli of Bubonic Plague.*

SOME months ago Dr. Leonard Haydon who was sent out to Bombay to the Plague Committee there and made investigations on plague bacilli arrived in Victoria on a visit to his brother. He brought with him several cultures of the bacilli. He showed his cultures to the President of the Board of Health and gave him information as to the measures taken in India to prevent the spread of the bubonic plague. When news came to Victoria of the fatal cases at Vienna from experiments with the plague bacilli at the Pathological Institute the Board of Health got alarmed and despatched its assistant medical officer with a detective to seize and destroy the bacilli in possession of Dr. Haydon. At first Dr. Haydon refused to give them up, pointing out that they were attenuated cultures and therefore not only harmless but that they would be of use in treatment should the disease reach the colony. He also claimed £300 as compensation if they were destroyed. Eventually, however, he handed them over and they were destroyed by heat. The Board had no legal power to seize the bacilli, but the Customs Act was brought in to aid on the ground that the gelatin of the cultures was dutiable and no duty had been paid. Dr. Haydon considers that he has been very unfairly treated, but the Board and the Government maintain that "the safety of the public is the supreme consideration." Dr. Haydon will probably receive compensation.

*The Midwifery Nurses Bill (New South Wales).*

On the Midwifery Nurses Bill coming up for its second reading in the New South Wales Legislative Council, after having been passed in the Assembly, the Attorney-General opposed the measure and said that the Government had received a communication from the Board of Health to the effect that the Bill imposed duties on the Board which could not be undertaken and were altogether outside the functions of that body. He said that the effect of the Bill would be to turn loose on the unthinking and undiscriminating public a class of women, really unqualified, but able to pose as qualified, and with a character almost as good as a medical man. The Bill was negatived by 27 votes to 4.

*Poisons Act Amendment Bill (Victoria).*

Reference has been previously made to the Poisons Act Amendment Bill introduced into the Legislative Assembly of Victoria. The Bill has now passed through all its stages in the Assembly and has been sent on to the Legislative Council. The Pharmacy Board desired some further amendments and restrictions which however were opposed by the medical societies as limiting the rights of medical practitioners in dispensing. In the discussion on the Bill in the Assembly the opinion was freely expressed that the Bill should make it compulsory for the composition of all patent medicines to be stated on the label, but the Bill was passed as drafted, the Chief Secretary promising to inquire into the effect of the proposed amendments.

*Dentists Bill (Victoria).*

A Bill to amend the law relating to dentists has been introduced in the Legislative Council of Victoria by the Government. It provides for a reduction in the number of members of the Dental Board from 7 to 6. 2 members are to be legally qualified medical practitioners and at least 3 are to be dentists. The board is to select examiners for conducting examinations and it may accept a certificate of examination in any particular subject by the University of Melbourne, the College of Pharmacy, or any school of mines or public educational institution. Unregistered persons are to be prohibited from using the name of "dentist," "dental surgeon," or "dental hospital," "college," or "school." Provision is made for registering dentists with recognised certificates obtained in other countries.

*Annual Meeting of the Society of Medical Officers of Health (Victoria).*

At the annual meeting of the Society of Medical Officers of Health of Victoria the election of officers resulted as follows:—President, Dr. J. Jamieson. Vice-Presidents, Dr. Courtney and Mr. Branson. Committee, Mr. Macmullen, Mr. Morton, Dr. Whitaker, and Dr. Gäust. Hon. sec. and treasurer, Dr. Daish. The report stated that the society had given special attention to the supply of pure drinking water in State schools; it claimed that it was obligatory on the Government to supply the children with pure air and pure water. The milk-supply had also specially engaged attention and the society had joined the other medical societies in a campaign against the present arrangements made compulsory by certain clauses in the Factories and Shops Act. The President then read a paper on Tuberculosis: its Prevention and Cure, and stated that about 800 persons died annually from that disease in Melbourne.

*The Milk-Supply of Melbourne.*

On the subject of the metropolitan milk supply a deputation of delegates from the Medical Society of Victoria, the Victorian Branch of the British Medical Association, the Melbourne Medical Association, and the Society of Health Officers, waited on the Chief Secretary to ask that the operation of the Factories and Shops Act with reference to the non-delivery of milk on Wednesday and Sunday afternoons should be suspended during the summer season. It was pointed out that under sections 45 and 46 of the Act it was illegal to deliver milk on two afternoons of the week. Diarrhœal complaints due to bad milk were responsible for 1000 out of 1600 deaths of infants in the metropolis. The Chief Secretary, in reply, said that the fault was in the whole system of milk-supply and the Act only legalised what had been the custom before it was passed and it did not prevent people going to the dairy for milk. The matter would receive his best attention and he would obtain a report on the subject from the Board of Health.

*Tubercle in Meat in Victoria.*

Some statistics recently prepared for the Minister of Agriculture in Victoria show that the number of cattle found to be affected with tubercle when slaughtered is very small compared to other countries, being only 4 per cent. as against 15 per cent. in Berlin, 17·7 per cent. in Denmark, 20 per cent. in France, 22 per cent. in Saxony, and 25 per cent. in England. This result is attributed to systematic inspection which is to be made still more rigorous.

*The Medical Profession and the Friendly Societies.*

Early in November a conference of delegates from the various medical societies in all the colonies was held in Melbourne to consider the relations between the profession and the friendly societies and endeavour to get some united and intercolonial action in remedying alleged abuses. The conference was summoned by the Medical Defence Association of Victoria and was attended by representatives from New South Wales and South Australia as well as from the country and metropolitan medical societies

in Victoria. Queensland and Tasmania were unable to send delegates but were willing to coöperate. Mr. G. A. Syme was elected President of the conference and Dr. E. W. Anderson secretary. It was agreed that the present relations between the profession and the friendly societies were unsatisfactory and that the societies should impose a wage limit of £200 per annum upon all their members. It was also agreed that each member of a lodge should pay an annual fee of 10*s.* and a fee of 1*s.* for each consultation and 2*s.* 6*d.* for each visit of the lodge surgeon, and that midwifery and miscarriages, anæsthetics, accidents at sport, teeth extractions, operations, and cases involving legal proceedings should be extras. It was suggested that a conference be held between delegates from the meeting and delegates from the friendly societies. The Medical Defence Association issued a circular to its members asking for certain information, and from the replies it was apparent that the abuse of the lodge system by well-to-do persons was very prevalent.

Dec. 6th, 1898.

[*By Telegram.*]

Sir Alfred Roberts is dead.

# Obituary.

## JOSEPH COATS, M.D. GLASG.,

PROFESSOR OF PATHOLOGY IN THE UNIVERSITY OF GLASGOW.

IT is with much regret we announce the death of Dr. Joseph Coats, Professor of Pathology in the University of Glasgow and Pathologist to the Glasgow Western Infirmary. Dr. Coats had been in unsatisfactory health during the last two years. In the summer of 1897 he obtained leave of absence from his duties and spent some months in the Channel Islands. Subsequently he took a voyage to Australia and on his return was able for a time to conduct his class at the University. In the later months of last year his health again gave way, and more recently definite evidence of malignant disease appeared, and to this he succumbed at his residence in Glasgow on Jan. 24th. He leaves a widow and two daughters. Dr. Coats was a native of Paisley where he was born in 1846. He was educated at the Grammar School of that town and at the University of Glasgow. It was at the latter institution that he pursued his medical studies and graduated with first class honours in 1867. He then proceeded to Germany where he spent two years, the greater part of the time being occupied in experimental work at Leipsic under Professor Ludwig. Shortly after his return to Glasgow he was appointed Pathologist to the Royal Infirmary and commenced to give a short course of lectures on pathology, a subject not then included in the official medical curriculum. He also gave considerable attention to the subject of diseases of the throat, and it may be remembered that he is responsible for the chapter on this subject in Dr. Finlayson's Clinical Medicine. He very soon, however, concentrated his entire time and energies to pathological work, though it is noteworthy that he had had considerable experience as a hospital physician, and all his influence and teaching were strongly opposed to the view which would restrict the scope of pathology to the mere facts of post-mortem examination. On the contrary, he invariably led his students to regard the physiological and clinical relationships of these facts and to use their pathological studies as guides to a broad scientific and practical view of the nature and phenomena of disease.

When the Western Infirmary was opened Dr. Coats was appointed pathologist and his lectures were recognised by the University, but it was not until 1890 that he was appointed University lecturer and only in 1893 upon the foundation of the chair by the Universities' Commission that with universal approval he became Professor of Pathology and took his seat in the Senatus. But for fully twenty years before that date he had been the University professor in everything but name and many hundreds of students who are to-day mourning his untimely death are indebted to him not merely for technical instruction in the subject which he taught but for a steady example of earnestness, thoroughness, and loftiness of purpose and aim. The simplicity and strength of his character, his undeviating regard for accuracy in all the phases of human life, his fearlessness, and his earnestness of conviction, were influences well appreciated both by his students and by all who knew him. Possibly to the stranger, and certainly to the trifler, a manner somewhat cold and reserved might seem to argue some deficiency of sympathy, but all associated with him knew him and trusted him as a just man, generous-hearted, unselfish, strong, and true.

The most considerable work which Dr. Coats presented to the profession was of course his "Manual of Pathology"; he also published together with his friend and colleague, Sir William Gairdner, a volume entitled, "Lectures on Tubercular Diseases." For many years he acted as Editor to the *Glasgow Medical Journal*, and numerous articles from his pen are to be found in the current literature of the last twenty years. His careful and exact powers of observation and the logical cast of his mind are well illustrated, for example, in the report of the Glasgow Commission on Anæsthetics and in an address on the nature of cancer which he delivered a few years ago as President of the Glasgow Medico-Chirurgical Society. His *alma mater* is indebted to him for many things, and the present position of pathology in the University is largely due to his influence. The splendidly equipped Pathological Institute now forming part of the resources of the University is a monument to his unflagging devotion and perseverance, whilst it is none the less true that his capacity for appreciating the aspirations and difficulties of younger men and his kindliness and guidance made his laboratory the scientific home of many earnest workers. The same personal qualities and the absolute confidence of his professional associates in his rectitude of purpose explain the active and responsible interest which he took in the establishment of the University Union and in all movements likely to promote the interests and welfare of young men. In all spheres and forms of professional activity it is not too much to say that he was held in the highest regard and was trusted, being known to be true. Dr. Coats was a man of deep and strong religious convictions. He was a member of the Baptist Church and for some years he acted as President of the Baptist Theological College in Scotland. No one can know a man like this and lose him without the consciousness of a severe and abiding wound.

## HENRY ALLEYNE NICHOLSON, M.D., D.SC. EDIN., F.R.S.

DR. NICHOLSON, Regius Professor of Natural History in the University of Aberdeen, who died at his residence in that city on Jan. 19th, was born at Penrith, Cumberland. He received his early education at Appleby Grammar School, and afterwards commenced his scientific studies in the University of Göttingen. From 1862 to 1867 he studied medicine and the natural sciences at Edinburgh University, graduating M.B., C.M., in the latter year with first-class honours in all the subjects of examination and carrying off also the gold medal of the University for his thesis on the geology of his native county. In 1866, on obtaining the degree of B.Sc., he was awarded the Baxter Scholarship as the most distinguished science graduate of the year. In 1867 he graduated as D.Sc., and in 1869 on taking the degree of Doctor of Medicine he gained the Ettles Medical Scholarship as the most brilliant medical graduate of the year. During the next two years he was lecturer on natural history in the Extra-Academical School of Medicine, Edinburgh, and from 1871 to 1874 filled the chair of Natural History in the University of Toronto, Canada, making important researches during his stay in the Dominion. After two sessions' occupancy of the chair of Biology in the College of Physical Science in Newcastle in the home country, Dr. Nicholson was appointed Professor of Natural History in the University of St. Andrews, where he practically created the study of the subject and where he remained for six years. In 1877 he was chosen by the British Museum trustees as Swiney lecturer in Geology in succession to Dr. W. B. Carpenter, and he delivered four courses of lectures, partly palæontological and partly geological. In the beginning of May, 1882, he succeeded Professor Cossar Ewart in the Natural History chair at Aberdeen University, where he established an entirely new department of geology, both systematic and practical, and where he was up to within a few days of his death a most successful teacher. Dr. Nicholson was not only an accomplished lecturer, but was also a prolific author on geological

and zoological subjects. Among his systematic treatises are "The Ancient Life History of the Earth" (1877) and "Manual of Palæontology" (1872—second edition in 1879). In 1897 he was elected a Fellow of the Royal Society of London. Dr. Nicholson was a thorough master of the subjects in his department and was very popular with the students and with his fellow professors, who feel that his death is a great loss to the University of Aberdeen. The funeral took place on Jan. 21st from the Mitchell Hall, Marischal College, and was largely attended by the members of the University Court and other academic bodies, the students, and the general public. Dr. Nicholson is survived by a widow, three sons, and two daughters.

### JOHN DUNCAN, M.A., M.D., C.M. ABERD.

DR. JOHN DUNCAN died at his residence, Bideford, North Devon, on Jan. 13th, at the age of forty-two years. The deceased was a son of the Rev. J. Duncan of Aberdeen, and he received his education at the university of that town. He was awarded the Shepherd gold medal in surgery in 1884, and he graduated M.A., M.B., C.M. in 1885, taking the M.D. degree in 1895. He went to Bideford fourteen years ago as assistant to the late Dr. Cox, whose partner he shortly afterwards became, ultimately succeeding to the practice. Dr. Duncan, who was unmarried, was greatly respected, and much regret is felt in Bideford at his early death.

# Medical News.

**ROYAL COLLEGE OF SURGEONS OF ENGLAND.**—The following gentlemen passed the Preliminary Science Examination in Chemistry, Physics, and Practical Chemistry for the Diploma in Dental Surgery at the January meeting of the examiners, viz.:—

Mr. Sydney Clifford, Birkbeck Literary and Scientific Institute; and Mr. Robert Walker Craig, Wyggeston School, Leicester.
Two gentlemen were referred to their studies for three months.

The following arrangements for the lectures at the Royal College of Surgeons of England are announced: On Monday, Feb. 6th, Wednesday, Feb. 8th, and Friday, Feb. 10th, Professor Leonard E. Hill (Hunterian Professor) will deliver his lectures on "Researches on the Influence of Gravity on the Circulation." On Monday, Feb. 20th, Wednesday, Feb. 22nd, and Friday, Feb. 24th, Dr. T. Grigor Brodie will deliver the Erasmus Wilson lectures on "The Chemical Pathology of some Infective Diseases." Mr. Berkeley G. A. Moynihan will deliver the Arris and Gale lectures on Monday, Feb. 27th, Wednesday, March 1st, and Friday, March 3rd, on "The Anatomy and Surgery of the Peritoneal Fossæ." On Monday, March 6th, Wednesday, March 8th, and Friday, March 10th, Professor Frederick G. Parsons (Hunterian Professor) will lecture on "Joints of Mammals contrasted with those of Man." Professor Charles Stewart, F.R.S. (Hunterian Professor), will deliver six lectures on "Alteration of Generation and Recent Additions to the Museum" on Monday, March 13th, Wednesday, March 15th, Friday, March 17th, Monday, March 20th, Wednesday, March 22nd, and Friday, March 24th. The lectures will be delivered in the theatre of the College at 5 P.M. each day. The Hunterian Oration will be delivered on Tuesday, Feb. 14th, by Sir William Mac Cormac, Bart., K.C.V.O., President of the College, in the theatre of the College at 4 P.M. precisely.

**SOCIETY OF APOTHECARIES OF LONDON.**—In January the following candidates passed in the subjects indicated:—

*Surgery.*—F. M. Aldred, Liverpool; R. L. Argles, St. Mary's Hospital; H. H. Cotman (Section II.), Aberdeen and London Hospital; K. Grube, Bonn; R. R. Mowll (Section I.), King's College Hospital; A. Robinson, Leeds; S. Southam, Westminster Hospital; L. K. Tickner, Durham; H. Whittaker, Cambridge; and C. H. Williams, St. Bartholomew's Hospital.
*Medicine.*—R. R. P. S. Bowker, Middlesex Hospital; A. R. Freer, Edinburgh and St. Mary's Hospital; S. H. Longhurst, Guy's Hospital; D. V. Lowndes (Section II.), Westminster Hospital; G. S. Moore, London Hospital; and R. R. Mowll (Section I.), King's College Hospital.
*Forensic Medicine.*—R. R. P. S. Bowker, Middlesex Hospital; R. R. Mowll, King's College Hospital; and L. Liebster, Vienna and London Hospital.
*Midwifery.*—H. C. Cooper, St. George's Hospital; H. R. Cross, Leeds; H. Fawcett, Cambridge and London Hospital; R. J. Gruchy, London Hospital; W. M. McLoughlin, University College Hospital; C. G. Meade, St. Bartholomew's Hospital; and C. H. St. M. W. Toke and H. E. Weston, St. George's Hospital.

The diploma of the Society was granted to the following candidates entitling them to practise medicine, surgery, and midwifery: Messrs. F. M. Aldred, R. L. Argles, H. H. Cotman, R. A. Gruchy, and A. Robinson.

**THE INSTITUTE OF CHEMISTRY OF GREAT BRITAIN AND IRELAND.**—At the January examinations the following candidates were successful:—

*Practical Examination for the Associateship.*—A. J. Chapman, F. E. P. Forster, and G. P. Lishman.
*Intermediate Examination.*—S. Aston, W. L. Blackman, B. R. Coysh, H. D. Hewitt, A. Hill, H. W. Kinnersley, J. Rogers, F. Shedden, and L. Wright.
*Final Examination for the Associateship.*—J. Golding, W. C. Hancock, A. Marshall, J. Imrie, R. Wild, W. S. Gilles, P. J. Hinks, T. F. Joyce, J. F. H. Gilbard, C. A. Hackman, and F. S. Young.

**PAN-AMERICAN MEDICAL CONGRESS.** — The Chicago *Railway Surgeon* of Nov. 29th, 1898, states that the Third Pan-American Medical Congress, which was appointed to be held in Caracas, Venezuela, in December, 1899, has been postponed on account of political troubles and an epidemic of small-pox and will be held in Caracas in December, 1900.

**PRESENTATION TO A MEDICAL MAN.** — On Jan. 16th Mr. Josiah Blomfield, M.D. Aberd., F.R.C.S. Eng., the medical officer of the Licensed Victuallers' Asylum, Old Kent-road, was the recipient from the inmates of that institution of an address handsomely illuminated on vellum, framed and glazed, as a testimony of his uniform kindness and medical skill to them and their predecessors during his fifty years of official service as medical officer. The presentation was made on behalf of the subscribers by Mr. Annett, the secretary of the asylum.

**UNIVERSITY OF CAMBRIDGE.** — On Jan. 19th the following medical degrees were conferred:—M.D.: E. A. R. Newman, B.A., Caius; M.B. and B.C.: C. R. Reissmann, B.A., St. John's; B.C.: E. C. Taylor, B.A., St. John's.—The contributions to the recently-established Benefaction Fund now amount to over £8500 and include £1000 from Lord Iveagh. A considerable number of the donations are for the rebuilding of the Medical School.—Mr. Strangeways-Pigg, Demonstrator of Pathology, who was conducting the classes during the vacancy of the professorship, has unfortunately fallen ill. His work will be carried on for the present by Dr. Drysdale, of St. Bartholomew's Hospital and St. John's College.

**PRIZES OF THE PARIS ACADEMY OF SCIENCES.**—The *Revue Scientifique* of Dec. 24th, 1898, publishes the awards of prizes made by the Paris Academy of Sciences and announced at the public annual meeting held on Dec. 19th. The prizes in medicine, surgery, and allied subjects were as follows:—Prix Montyon, of 7500 fr.: a prize of 2500 fr. was awarded to M. Widal for his researches on the Agglutinating Power of Serums; a prize of 2500 fr. was awarded to M. Bard for his works on Cellular Specificity; and a prize of 2500 fr. was divided between MM. Poncet and Bérard for their clinical treatise on Actinomycosis in the Human Subject. Prix Barbier, of 2000 fr., awarded to M. J. Comby for his Researches on Rickets. Prix Bréant, of 100,000 fr.: a prize the value of which was not stated was awarded to M. Phisalix for his Researches and Discoveries in Chemical Vaccines. Prix Godard, of 1000 fr., divided between M. B. Motz for a contribution to the Histology of Hypertrophy of the Prostate and M. F. Guiard for a Treatise on Blennorrhagia. Prix Bellion, of 1400 fr., awarded to M. Castaing for a memoir on the Ventilation of Buildings. Prix Mége, of 10,000 fr., divided between MM. Labadie-Lagrave and Félix Legueu for their treatise on Medical and Surgical Gynæcology. Prix Lallemand, of 1800 fr., divided between Mr. Edward Phelps Allis for his memoir entitled "The Cranial Muscles and First Spinal Nerves of Amia Calva," and M. A. Thomas for a work on the Anatomy and Physiology of the Cerebellum. Prix Larrey, of 1000 fr., awarded to MM. J. Regnault and De Raoult for a work on the subject of Walking. Prix Montyon, of 750 fr., awarded to M. J. Tissot for a work on the Force Exercised by Muscle in Contracting. Prix Pourat, of 1400 fr., for investigation of the Motor Innervation of the Stomach, awarded to MM. D. Courtade and J. F. Guyon. Prix Philipeaux, of 890 fr., awarded to M. Moussu, for researches on the Functions of the Parathyroid Glands.

THE Duchess of Albany opened a new Nurses' Home attached to the Chelsea Hospital for Women on Jan. 20th and subsequently paid a visit to the hospital.

BRISTOL DISPENSARY.—The annual meeting of the Bristol Dispensary was held on Jan. 13th. The medical report showed that 11,771 patients had been treated during 1898. The receipts amounted to £3124. The committee much regret the resignation of the honorary treasurer, Mr. F. J. Fry, who has been connected with the institution for the past forty-two years.

THE RECOVERY OF MEDICAL FEES.—At the Barry County Court on Jan. 10th Mr. Patrick Kelly, L.R.C.P. Edin., L.R.C.S. Irel., sued a man for £4 10*s.* for medical attendance. Owing to the nature of the case Mr. Kelly would not give full particulars in court and as he also had not supplied them to the defendant the judge adjourned the case for a month in order that he might do so, ordering Mr. Kelly to pay the costs of the day.

DIAMOND JUBILEE MEMORIAL AT MARGATE.—The enlargement of the Cottage Hospital at Margate which was undertaken in commemoration of Her Majesty's Diamond Jubilee upon the suggestion of Mr. Bertram Thornton, has recently been in progress, and on Thursday, Jan. 19th, the new central block of the hospital was opened by the Right Hon. James Lowther. The original "cottage" which formed the nucleus of the institution has been entirely pulled down, leaving the added Lucas and Wilcox wards and the operating room. On the vacant site and part of the front garden a large building has been erected, with all the requirements of a modern hospital.

BRADFORD AND DISTRICT MEDICO-ETHICAL SOCIETY.—The annual general meeting of this society was held on Jan. 18th at the Midland Hotel, Bradford. There was a large attendance, the following gentlemen being present: Dr. C. F. M. Althorp, Dr. S. Johnston, Mr. I. Mossop, Mr. E. G. Peck, Dr. R. Hamilton, Mr. P. E. Miall, Dr. Bell Graham, Dr. T. C. Denby, Dr. W. Horrocks, Dr. J. H. Bell, Dr. F. W. Eurich, Dr. W. A. Evans, Dr. D. Goyder, Mr. W. J. Parkinson, Dr. A. Manknell, Dr. F. K. March, Mr. H. J. Butler, Mr. R. Love, Dr. T. Jason Wood, Dr. B. Hall, Dr. A. Rabagliati, Dr. A. Bronner, Mr. G. H. Moorhead, and Mr. W. Handcock. The usual business of the society was transacted and the following is a list of the officers elected for the ensuing year:—President: Mr. P. E. Miall. Vice-President: Dr. T. C. Denby. Treasurer: Dr. F. K. March. Secretaries: Dr. W. Horrocks and Dr. A. Manknell. Committee: Dr. C. F. M. Althorp, Dr. D. Goyder, Dr. J. H. Bell, Mr. I. Mossop, Dr. A. Rabagliati, and Mr. H. J. Butler. Auditors: Mr. W. J. Parkinson and Mr. E. G. Peck.

LITERARY INTELLIGENCE. — Messrs. Williams and Norgate's book circular for December, 1898, announces the early appearance of the following medical and surgical works: vol. xxviii. of the "Jahresbericht über die Leistungen und Fortschritte auf dem Gebiete der Ophthalmologie"; vol. ii. of the "Traité de Microbiologie," by Duclaux (vol. i. was issued in the early part of 1898); vol. i., for the year 1897, of the "Jahresbericht über die Leistungen und Fortschritte auf dem Gebiete der Neurologie und Psychiatrie," edited by Professor E. Mendel, Dr. L. Flatau, and Dr. L. Jacobson; a second and enlarged edition of the "Atlas des Menschlichen Gehirns und des Faserverlaufes," by Dr. Edward Flatau of Berlin; "Experimentelle Studien über die Fettgewebsnekrose des Pankreas," by Dr. A. Katz and Dr. F. Winkler of Vienna; "Anleitung zur Uebungs-behandlung der Ataxie," by Professor A. Goldscheider. The forthcoming part of the "Beiträge zur Klinischen Chirurgie" will contain an illustrated article on the Dum-Dum Bullet and its Effect on the Human Body by Professor von Bruns who has already written on the subject.

## BOOKS, ETC., RECEIVED.

BAILLIÈRE, J. B., ET FILS, Paris.
L'Exercice de la Médecine et le Charlatanisme. Par P. Brouardel. 1899.
Les Glycosuries non-diabétiques. Par G. Roque. 1898.

BAILLIÈRE, TINDALL, AND COX, King William-street, Strand, London.
Dictionary of Medical Terms: English-French. By H. De Meric, M.R.C.S. 1899. Price 5*s.* net.

BOWDEN, JAS., Henrietta-street, Covent-garden, London.
The Secret of Good Health and Long Life. By H. Brown, L.R.C.P., L.R.C.S. Edin. Second edition. 1898.

BLAKISTON'S SON, AND CO., Philadelphia.
A Practical Handbook on the Muscular Anomalies of the Eye. By H. F. Hansell, A.M., M.D., and W. Reber, M.D. Illustrated. 1899.

CARRÉ, GEORGES, ET C. NAUD, Paris.
Introduction à l'Étude de la Médecine. Par G. H. Roger. 1899.

CHURCHILL, J. & A., Great Marlborough-street, London.
Guy's Hospital Reports. Edited by E. C. Perry, M.A., M.D., and W. H. A. Jacobson, M.A., M.Ch. Vol. LIII. Being Vol. XXXVIII. of the Third Series. 1898.
St. Thomas's Hospital Reports. New Series. Edited by Dr. H. Mackenzie and Mr. G. H. Makins. Vol. XXVI. 1898. Price 8*s.* 6*d.*

EATON & MAINS, New York.
Extemporaneous Oratory. By J. M. Buckley, LL.D.

JOHNSTON, W. & A. K., Edinburgh and London.
The Anatomy of Labour, as Studied in Frozen Sections and its Bearing on Clinical Work. By A. H. F. Barbour, B.Sc., M.D., F.R.C.P. Edin. Second edition. 1899.

LEWIS, H. K., Gower-street, London.
Ambulance Lectures: First Aid to the Injured. By S. Osborn, F.R.C.S. Fourth edition. Illustrated. 1899.

LOCAL GOVERNMENT JOURNAL OFFICE, Dorset-street, Fleet-street, London.
The Local Government Annual: An Official Directory. 1899. Edited by S. Edgcumbe-Rogers. Price 2*s.* 6*d.*

MACLEHOSE, JAMES & SONS, Glasgow.
Glasgow Hospital Reports. Vol. I. Illustrated. 1898.

MACMILLAN & Co., London.
Vaccination, its Natural History and Pathology. By S. M. Copeman, M.D. 1899. Price 6*s.*

REBMAN PUBLISHING COMPANY, Shaftesbury-avenue, London.
Archives of the Roentgen Ray. November, 1898. Edited by T. Moore, F.R.C.S., and E. Payne, M.A. Cantab. 1898.
An American Text-book of the Diseases of Children. By American Teachers. Edited by L. Starr, M.D., assisted by T. S. Westcott, M.D. Second edition. 1898. In two volumes.
The Diseases of the Stomach. By W. W. Van Valzah, A.M., M.D., and J. D. Nisbet, A.B., M.D. Illustrated. 1899.
A Clinical Text-book of Medical Diagnosis. By C. Vierordt, M.D. Authorised Translation, with Additions, by F. H. Stuart, A.M., M.D. Fourth American edition from the fifth German. Illustrated. 1898.
The Surgical Complications and Sequels of Typhoid Fever. By Wm. W. Keen, M.D., LL.D., and as an Appendix the Toner Lecture, No. 5. 1898.
An American Text-book of Gynecology, Medical and Surgical. Edited by J. M. Baldy, M.D. Second edition. Illustrated. 1898.

ROBERT SMITH PRINTING COMPANY, Lansing.
Thirtieth Annual Report of Births, Marriages, and Deaths in Michigan for the Year 1896. By the Secretary of State of the State of Michigan. 1898.

SCIENTIFIC PRESS, Southampton-street, Strand, London.
George Harley, F.R.S.: The Life of a London Physician. Edited by his daughter, Mrs. Alec Tweedie. 1899. Price 16*s.*
Poison Romance and Poison Mysteries. By C. J. S. Thompson. 1899. Price 6*s.*

SMITH, ELDER AND CO., Waterloo-place, London.
Albuminuria and Bright's Disease. By Nestor Tirard, M.B., F.R.C.P. Illustrated. 1899. Price 12*s.* 6*d.*

STATE HOSPITALS PRESS, at Utica, N.Y.
The Archives of Neurology and Psychopathology. Published under the auspices of the New York State Hospitals and the Pathological Institute. Vol. I. 1898. Nos. 1-2. 1898.

SWAN SONNENSCHEIN AND CO., Paternoster-square, London.
Sanatoria for Consumptives in Various Parts of the World. By F. R. Walters, M.D., M.R.C.P. With an Introduction by Sir R. D. Powell, Bart., M.D., F.R.C.P. 1899. Price 10*s.* 6*d.* net.

WHITAKER & SONS, Warwick-lane, Paternoster-row, London.
A Directory of Titled Persons for the Year 1899: a Companion to Whitaker's Almanack.

WILEY, J. & SONS, New York, and CHAPMAN & HALL, London.
A Text-book of Physiological Chemistry. By C. Hammarsten. Authorised Translation from the Author's Third German Edition, by J. A. Mandel. Second Edition. 1898.

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Transactions of the American Orthopedic Association. Twelfth Session, held May, 1898. Vol. xi. 1898 (Published by the Association, Philadelphia).—Transactions of the American Gynecological Society. Vol. xxiii., for the year 1898 (Wm. J. Dornan, Printer, Philadelphia).

Magazines, &c., for February: Strand Magazine, Boy's Own Paper, Girl's Own Paper, Leisure Hour, Sunday at Home, Ludgate Magazine, Westminster Review, Contemporary Review, Friendly Greetings, Myra's Journal, Pall Mall Magazine, Windsor Magazine, Cornhill Magazine, Blackwood's Magazine, Pearson's Magazine, English Illustrated Magazine, Knowledge, Humanitarian, St. Peter's Magazine.

# Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

BOOTH, P. L., M.R.C.S., has been appointed Honorary Surgeon to the North Lonsdale Hospital, Barrow-in-Furness.

CRAWFORD, J. J., M.B., B.Ch. Univ. Dub., has been appointed Resident Medical Officer to the Victoria Hospital, Burnley.

DENT, E. A., M.B., C.M. Edin., has been appointed Medical Officer for the Third Sanitary District of the Cheltenham Union.

EMANUEL, J. G., M.B., B.Sc. Lond., M.R.C.S., L.R.C.P. Lond., has been appointed Resident Medical Officer to the City of London Hospital for Diseases of the Chest, Victoria-park, E.

EYRES, H. M., M.B., C.M. Edin., has been appointed a Medical Officer for the Scorton and Catterick Sanitary Districts of the Richmond (Yorks) Union.

FARMER, GABRIEL WILLIAM STAHEL, M.A., M.B., M.Ch. Oxon., F.R.C.S., has been appointed Honorary Surgeon to the Radcliffe Infirmary, Oxford, vice W. L. Morgan, resigned.

GARRETT, J. G., M.R.C.S., L.S.A., has been appointed Medical Referee to the City of London Electric Lighting Company, Limited.

KENDRICK, G., L.R.C.P. Lond., M.R.C.S., has been appointed a Medical Officer for the Bilston No. 5 Sanitary District of the Wolverhampton Union.

KILLICK, C. R., M.B. Lond., L.S.A., has been appointed a Medical Officer for the Workhouse and the Williton Sanitary District of the Williton Union.

LAPTHORN, C. A., F.R.C.S. Edin., L.R.C.P. Lond., M.R.C.S., has been appointed a Medical Officer and Public Vaccinator for the Littlehampton Sanitary District and Medical Officer for the Workhouse, vice F. C. Bryan.

MACCONKEY, A. T., B.A., M.B., B.C. Cantab., D.P.H. Camb., has been appointed Assistant to the Bacteriologist of the Royal Commission on Sewage Disposal.

MESSENGER, T., F.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed a Medical Officer for the Bowness Sanitary District of the Wigton Union.

NIX, R. E., M.B., B.C. Camb., has been appointed a Medical Officer for the Third Sanitary District of the Thingoe Union.

PROCTER, J. A., L.S.A., has been appointed a Medical Officer for the Lydd Sanitary District of the Romney Marsh Union.

ROSE, L., M.B., C.M. Edin., has been appointed a Medical Officer for the Second Sanitary District of Newport, Salop.

RUTHERFORD, ALEXANDER, M.B. Edin., has been appointed Honorary Surgeon to the North Lonsdale Hospital, Barrow-in-Furness.

STANWELL, ST. JOHN, M.B., C.M. Edin., M.R.C.S., L.R.C.P. Lond., has been appointed Assistant Surgeon to the Stamford, Rutland, and General Infirmary.

STONE, F. W. S., L.R.C.P., L.R.C.S. Irel., has been appointed a Medical Officer for the Bitton Sanitary District of the Warmley Union.

SUTCLIFF, E. H., M.B. Durh., L.R.C.P. Lond., M.R.C.S., has been appointed a Medical Officer for the Great Torrington Sanitary District of the Torrington Union.

WILLIAMSON, OLIVER K., M.B., has been appointed Second House Physician to the City of London Hospital for Diseases of the Chest, Victoria-park, E.

WILSON, J. F., M.D., has been appointed Honorary Surgeon to the North Lonsdale Hospital, Barrow-in-Furness.

WOAKES, CLAUD, M.R.C.S., L.R.C.P., has been appointed Surgeon to the London Throat Hospital.

# Vacancies.

*For further Information regarding each vacancy reference should be made to the advertisement (see Index).*

BELFAST DISTRICT ASYLUM.—Assistant Medical Officer, unmarried. Salary £100 per annum, with £50 in lieu of rations, furnished apartments, fuel, lights, washing, and attendance.

CANCER HOSPITAL (FREE), Fulham-road, Brompton.—House Surgeon for six months. Salary at the rate of £50 per annum, with board and residence.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Pathologist.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park.—Pathologist. Salary 100 guineas per annum.

CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY, Wakefield. House Surgeon, unmarried. Salary £90 per annum, with board, lodging, and washing.

CONSUMPTION HOSPITALS AND ORPHAN HOMES OF SCOTLAND, Bridge of Weir.—Resident Medical Officer. Applications to the Hon. Secretary, 141, West George-street, Glasgow.

COVENTRY AND WARWICKSHIRE HOSPITAL, Coventry.—Senior House Surgeon for not less than two years. Salary £100 per annum, with rooms in the hospital, board, washing, and attendance.

HASTINGS, ST. LEONARDS, AND EAST SUSSEX HOSPITAL, Hastings.—House Surgeon, unmarried. Salary £75 per annum, with board, residence, and laundry expenses.

HUDDERSFIELD INFIRMARY.—Junior House Surgeon. Salary £40 per annum, with board, lodging, and washing.

LEICESTER INFIRMARY.—Assistant House Surgeon for twelve months. Honorarium £42, with board, residence in the infirmary, and washing.

LIVERPOOL SCHOOL OF TROPICAL DISEASES IN CONNEXION WITH UNIVERSITY COLLEGE, LIVERPOOL, AND THE LIVERPOOL ROYAL SOUTHERN HOSPITAL.—Lecturer in Tropical Diseases. Salary £250 a year and proportion of students' fees, with the right of private practice, will be granted. Applications to Professor Boyce, University College, Liverpool.

LONDON THROAT HOSPITAL, Great Portland-street.—Assistant Surgeon.

MANCHESTER CLINICAL HOSPITAL FOR WOMEN AND CHILDREN.—Honorary Pathologist.

MONKWEARMOUTH AND SOUTHWICK HOSPITAL.—House Surgeon, unmarried. Salary £80 per annum, with board, residence, and washing.

MORPETH DISPENSARY, Beechfield, Morpeth.—House Surgeon, unmarried. Salary £120 per annum, with furnished rooms, coal, and gas.

NATIONAL ORTHOPÆDIC HOSPITAL, 234, Great Portland-street, London.—A Surgeon's Registrar.

NATIONAL SANATORIUM FOR CONSUMPTION AND DISEASES OF THE CHEST, Bournemouth.—Lady Superintendent. Salary commencing at £60 per annum, with board, lodging, and washing.

NORFOLK AND NORWICH HOSPITAL, Norwich.—Assistant to House Surgeon for six months. Honorarium £20, with board, lodging, and washing.

NORTH LONDON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Mount Vernon, Hampstead.—Resident Medical Officer for one year. Applications to the Secretary, Offices, 41, Fitzroy-square, W.

ROYAL EDINBURGH ASYLUM.—Fourth Assistant Physician. Also Resident Clinical Clerk.

ROYAL EYE HOSPITAL OR ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL, Southwark, S.E.—House Surgeon. Salary £50 per annum, with full board and residence in the hospital.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Physician.

SHEFFIELD UNION.—Assistant Medical Officer (single or widower), to reside at the Union Workhouse, Fir Vale, Pitsmoor, for twelve months. Salary £100 per annum, with apartments, rations, and other usual allowances. Also Junior Assistant Medical Officer for the Workhouse Infirmary, Fir Vale, Sheffield, for six months, unmarried. Furnished apartments, board, and washing provided. Honorarium of £12 will be granted. Applications to the Clerk to the Guardians, Union Offices, West Bar, Sheffield.

ST. MARY'S CHILDREN'S HOSPITAL, Plaistow, E.—Assistant Resident Medical Officer for six months. Salary at the rate of £50 per annum, with board, lodging, and washing.

ST. MARY'S HOSPITAL, Paddington.—Casualty Physician for one year. Salary £75 per annum.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House Surgeon. Salary £30 per annum, with board, lodging, and washing.

TOWNSHIP OF TOXTETH PARK.—Senior Assistant Medical Officer for the Workhouse and Infirmary. Salary £100 per annum, with board, washing, and apartments. Subject to certain conditions. Applications to the Clerk to the Guardians, 15, High Park-street, Liverpool.

# Births, Marriages, and Deaths.

## BIRTHS.

BURLAND.—On Jan. 15th, at Finedon, the wife of Herbert Burland, M.R.C.S., L.R.C.P., of a daughter.

DICKSON.—On Jan. 22nd, at Scarsdale-villas, Kensington, the wife of T. Hugh Dickson, M.A., M.B., of a daughter.

DUKE.—On Jan. 22nd, at Winslowe, Hewlett-street, Cheltenham, the wife of Allen Forrester Duke, M.R.C.S., of a son.

ELLIOTT.—On Jan. 21st, at Cranford, St. Annes-on-the-Sea, the wife of A. Campbell Elliott, M.B., C.M., of a daughter.

FEGAN.—On Jan. 16th, at Old Charlton, Kent, the wife of F. Ardra Fegan, M.R.C.S., L.R.C.P., L.S.A., of a son.

GODDARD.—On Jan. 18th, at his residence, Norfolk-crescent, Hyde-park, W., the wife of Walter Horace Goddard, M.D., M.A. Cantab., of a daughter.

WINN.—On Jan. 21st, at King Edward-road, Hackney, the wife of T. C. Winn, M.R.C.S., of a son.

## MARRIAGES.

BOOTH—SHIPMAN.—On Jan. 19th, at St. Wulfram's, Grantham, the Rev. Harold Booth, of Hepple Parsonage, Rothbury, second son of the late William Booth, Esq., of Oran, Catterick, Yorks, to Edith, daughter of George W. Shipman, of Grantham.

CLARKE—GEE.—On Jan. 19th, at St. John the Baptist's Church, Leicester, Astley Vavasour Clarke, M.D. Cantab., eldest son of Julian St. Thos. Clarke, M.D., of Norwood House, Leicester, to Ethel Mary (Poppy), eldest daughter of H. Simpson Gee, J.P., of Knighton Frith, Leicester.

SKINNER—MONKHOUSE.—On Jan. 24th, at St. Clement's Church, Hastings, John Rutherford Skinner, M.B., C.M., of Winchelsea, Sussex, to Helen Charlotte, younger daughter of the late Rev. John Monkhouse, of Oakley Rectory, Basingstoke, and Robertson-terrace, Hastings.

## DEATHS.

BOWES.—On Jan. 16th, suddenly, at Symnel, Aldington, Kent, William Bowes, M.R.C.S., L.S.A., eldest son of the late William Bowes, of Elham, Kent, aged 59.

COATS.—On Jan. 24th, at 8, University-gardens, Glasgow, Joseph Coats, M.D., Professor of Pathology, Glasgow University.

EVANS.—On Jan. 8th, at his residence, Tanyronen, Portmadoc, Henry Evans, M.R.C.S. Eng., L.R.C.P. Edin., and L.S.A., aged 48 years.

GOODMAN.—On Jan. 20th, at his residence, Coombe House, Weaver, Cullompton, Devon, Godfrey Goodman, Fleet Surgeon R.N. (Retired), aged 63 years.

SCHÖN.—On Jan. 22nd, at Bridge, near Canterbury, Charles Henry Schön, M.R.C.S., L.S.A., fourth son of the late Rev. J. F. Schön, of New Brompton, Chatham, aged 44.

*N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

## METEOROLOGICAL READINGS.

*(Taken daily at 8.30 a.m. by Steward's Instruments.)*

THE LANCET Office, Jan. 26th, 1899.

| Date | Barometer reduced to Sea Level and 32° F. | Direction of Wind | Rainfall. | Solar Radia in Vacuo. | Maximum Temp. Shade. | Min. Temp | Wet Bulb. | Dry Bulb. | Remarks at 8.30 A.M. |
|---|---|---|---|---|---|---|---|---|---|
| Jan. 20 | 29·75 | S.W. | 0·03 | 60 | 55 | 46 | 46 | 47 | Cloudy |
| ,, 21 | 29·47 | S.W. | 0·20 | 69 | 58 | 47 | 52 | 54 | Stormy |
| ,, 22 | 29·40 | S.W. | 0·05 | 79 | 56 | 46 | 47 | 52 | Cloudy |
| ,, 23 | 29·69 | W. | 0·04 | 45 | 45 | 44 | 44 | 45 | Raining |
| ,, 24 | 30·33 | N. | 0·05 | Not taken | 45 | 36 | 37 | 38 | Cloudy |
| ,, 25 | 30·61 | N.E. | ... | | 41 | 33 | 33 | 34 | Hazy |
| ,, 26 | 30·64 | N.E. | ... | | 43 | 34 | 34 | 36 | Hazy |

# Medical Diary for the ensuing Week.

## OPERATIONS.

### METROPOLITAN HOSPITALS.

**MONDAY (30th).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M., Ophthalmic 1.15 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), St. Mark's (9.30 A.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), Westminster (2 P.M.), London Throat (2 P.M.).

**TUESDAY (31st).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Ear (3 P.M.).

**WEDNESDAY (1st).**—St. Bartholomew's (1.30 P.M.), University College, (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.).

**THURSDAY (2nd).**—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.).

**FRIDAY (3rd).**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M., Ophthalmic 10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2. 30 P.M.), London Throat (2 P.M. and 6 P.M.).

**SATURDAY (4th).**—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

## SOCIETIES.

**MONDAY (30th).**—SOCIETY OF ARTS. -8 P.M. Dr. S. Rideal: Bacterial Purification of Sewage. (Cantor Lecture.)

**TUESDAY (31st).**—CHILDHOOD SOCIETY (Library of the Sanitary Institute, 72, Margaret-street, W.).—8 P.M. Dr. F. Warner: Mental Abilities and Disabilities of Children.

**WEDNESDAY (1st).**—OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Dr. J. Phillips, Dr. Cullingworth, Dr. Des Vœux, and others. Annual Meeting. Dr. Cullingworth (President): Annual Address.

**THURSDAY (2nd).**—HARVEIAN SOCIETY OF LONDON (Stafford Rooms, Titchborne-street, Edgware-road).—8.30 P.M. Clinical Evening.

NEUROLOGICAL SOCIETY OF LONDON (11, Chandos-street, W.).—8.30 P.M. Annual General Meeting. Dr. W. H. Gaskell: The Meaning of the Cranial Nerves. (President-elect's Inaugural Address.)

**FRIDAY (3rd).**—WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital, Hammersmith, W.).—8.15 P.M. Discussion on the Treatment—Medical and Surgical—of Acute Inflammation of the Vermiform Appendix, introduced by Dr. S. Taylor and Mr. McAdam Eccles, and carried on by Dr. D. Hood, Mr. C. B. Keetley, Dr. S. Smith, Mr. L. A. Bidwell, Dr. H. A. Caley, and others.

WEST KENT MEDICO-CHIRURGICAL SOCIETY (Royal Kent Dispensary, Greenwich-road, S.E.).—8.45 P.M. Clinical Meeting. Dr. D. Grant: Cases of Chronic Suppuration of the Frontal Sinus and Antrum of Highmore treated exclusively through the Nose with good result. Council Meeting.

LARYNGOLOGICAL SOCIETY OF LONDON (20, Hanover-square, W.).—5 P.M. Cases and Specimens will be shown by the President, Dr. de H. Hall, Mr. Bowlby, Mr. Robinson, Dr. Potter, Sir F. Semon, Dr. Hill, and others.

## LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

**MONDAY (30th).**—WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Mr. C. B. Keetley: The Surgical Uses of Plaster of Paris and of Poroplastic.

THE ROYAL INSTITUTE OF PUBLIC HEALTH (Rooms of the Royal Medical and Chirurgical Society, 20, Hanover-square, W.).—8.30 P.M. Prof. S. Martin: Tuberculosis.

**TUESDAY (31st).**—WEST-END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM (73, Welbeck-street, W.).—4 P.M. Dr. T. D. Savill: Cases of Acroparæsthesia and other Angio-neuroses.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3.30 P.M. Dr. Ormerod: Ataxy.

**WEDNESDAY (1st).**—EVELINA HOSPITAL (Southwark-bridge-road, S.E.).—4.30 P.M. Dr. N. Tirard: Clinical Demonstration on Medical Cases from the Wards. (Post-Graduate Course).

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. Sir R. D. Powell: Mitral Stenosis.

**THURSDAY (2nd).**—WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Mr. C. B. Keetley: Injuries and Deformities of the Hip and Knee.

CHARING-CROSS HOSPITAL.—4 P.M. Dr. Eden: Gynæcological Demonstration. (Post-Graduate Class.)

LONDON TEMPERANCE HOSPITAL.—2 P.M. Dr. S. Fenwick: Clinical and Pathological Demonstration to Senior Students.

# Notes, Short Comments, and Answers to Correspondents.

## EDITORIAL NOTICES.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Lectures, original articles, and reports should be written on one side of the paper only,* AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of* THE LANCET *should be addressed "To the Manager."*

*We cannot undertake to return MSS. not used.*

## MANAGER'S NOTICES.

### THE INDEX TO THE LANCET.

THE Index to Vol. II. of 1898, which was completed with the issue of Dec. 31st, and the Title-page to the Volume, were given in THE LANCET of Jan. 7th.

### VOLUMES AND CASES.

VOLUMES for the second half of the year 1898 are now ready. Bound in cloth, gilt lettered, price 18*s.*, carriage extra.

Cases for binding the half-year's numbers are also ready. Cloth, gilt lettered, price 2*s.*, by post 2*s.* 6*d.*

To be obtained on application to the Manager, accompanied by remittance.

### TO SUBSCRIBERS.

The rates of subscriptions, post free, either from THE LANCET Offices or from Agents, are:—

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### THE HUMOURS OF SCHOOL INSPECTION.

WE always suspect the funny answers at examinations which we now and again read in the press of having been concocted, but the paper in the current *Cornhill* from the pen of a school inspector appears to be a record of actual experiences. Science, as usual, comes off badly: "The equator is an imaginary line going round the earth once in every twenty-four hours," and medicine even worse: "The diaphragm is a serious petition between the thorax and the abdominal regions;" "The bowels are five in number—a, e, i, o, and u;" "Oxygen, hydrogen, and a little carbon is the best food for infants."

## INDISCRIMINATE MEDICAL CHARITY.

A CORRESPONDENT has sent us a circular headed the "Church Lads' Brigade" which he says has been freely distributed about Thornton Heath, and while expressing his own opinion upon one clause of it desires to hear ours.

The objects of the Church Lads' Brigade as laid down in the circular are "to teach the great lessons of obedience, regularity, and self-respect, to provide amusement for lads, and to train them to be loyal Churchmen and useful citizens." This is an excellent programme. We like to have our young citizens loyal to the faith which they profess and we like to have them useful. Recruits can be received between the age of twelve and eighteen years, and the cost of joining is 1*s.* 5*d.*, while there is a subscription of 1*d.* a week and 1*d.* a month, the latter being to cover the magazine subscription. There are certain drills to be attended with the object clearly of teaching "the great lessons of obedience and regularity," while the amusement provided includes "games, nooks, periodicals ..... boxing club, swimming club, nigger troupe." The last clause in the circular runs as follows:—

> MEDICAL ATTENDANCE. Every member of the Company can receive free medical advice and medicine on going to the Surgery, 128, Beulah-road, any evening before 8 o'clock, through the kindness of Surgeon-Captain Ferguson.

This is the clause to which our correspondent refers in the following words and other stronger phrases which do not seem to us justifiable:—

"I beg to take the liberty of drawing your attention to the enclosed form, especially that part marked 'Medical Attendance.' These forms have been distributed around this parish. The lads belonging to this brigade come from respectable families who are in the large majority of instances perfectly capable of paying for medical attendance in the usual way and who have employed various medical men residing in this district. ..... I should be glad of an opinion in the columns of THE LANCET as to whether I am right or wrong in expressing my disapproval of the paragraph in question."

We have no hesitation in saying that our correspondent is perfectly right to express disapproval of the clause. We consider that Surgeon-Captain Ferguson has made a most unfortunate offer in his wish to assist the formation of the "Church Lads' Brigade." In tendering his professional services gratis to an unlimited number of lads, many of whom will be of wage-earning years, without making any inquiry into the need that exists for this indiscriminate charity, he is acting thoughtlessly and in a manner that must tend to cheapen the repute of the medical profession. Of all callings none is more generous than the profession of medicine. There is no need for a great display of willingness on the part of medical men to attend all sorts of persons indiscriminately in return for no fees to make the philanthropic nature of the medical life apparent to all whose opinion is worth having. Every medical man in a poor district, town or country, attends a large proportion of his cases knowing that he will never be paid and a substantial proportion at a figure which leaves him out of pocket—facts which are familiar to everybody as facts, although the individual instances of charity remain unknown save to the patient and the medical attendant. With these acts of charity we have every sympathy; we are proud to belong to the profession where their practice is a matter of course. But then this charity is not indiscriminate. It has its origin in one of two things—the urgent condition of the patient or a knowledge of his or her pecuniary circumstances. For indiscriminate charity we have not a good word to say. The persons who are benefited by it are not grateful to their benefactor and he is shirking responsibilities towards society by giving to the deserving and undeserving alike. In various articles in THE LANCET upon medical aid institutions we have commented severely upon the action of practitioners who, surrendering their freedom of judgment, have made themselves the instruments of other people's pseudo-charity. By becoming the servants of these institutions they lower the position of the medical profession in the eyes of the public without making for themselves an adequate wage. Similarly by throwing medical service gratis into the scale of advantages offered by any institution or association the position of the profession is lowered.

It will be noticed that, as we have pointed out, an attempt has been made to carry out all the various objects of the Church Lads' Brigade save that of teaching lessons of self-respect. Now is Surgeon-Captain Ferguson's opportunity. Nothing can be more self-respecting in man or boy than to discharge punctually his indebtedness towards his fellows. Let Surgeon-Captain Ferguson find out the means of the various lads who attend the surgery in Beulah-road, their wages or the income of their parents, and let him charge them for his services fees proportionate to their means. This will be a first-class way of inculcating the principle of self-respect, while if he chooses to support with his charity the excellent object of the Church Lads' Brigade he can turn into the general expenses fund of the Brigade the fees he receives. We repeat explicitly that we do not charge Surgeon-Captain Ferguson with unprofessional action, but we think that he has acted without consideration and has exposed himself to unfavourable comment.

## THE NATURAL NOISES OF ANIMAL LIFE.

IT will be remembered that some little time back the London County Council passed a by-law to restrain householders from keeping noisy animals. On Jan. 24th Mr. Alexander Pyke was summoned under this by-law for keeping a noisy bird—to wit, a cockerel. What interests us especially in this case is the dictum of Mr. Plowden who is reported as saying that this by-law was formed to meet the difficulty of a class of people who instead of deriving pleasure from the natural noises of animal life found those noises a source of exquisite torment and disquiet. He supposed that those people with whom one had every desire to sympathise, belonged to that noble army of faddists who were the spoiled darlings of the nation. There was no law to restrain the grievance, sentimental or real, until this by-law was made. Before this cocks could crow with impunity; now their earthly joy was checked. He thought that justice would be met by the infliction of a fine of 1*s.*, with 2*s.* costs. If Mr. Plowden derives enjoyment from "the natural noises of animal life" we suppose we may fancy him exclaiming with the bard, "Let 'em all come"—crowing cocks, howling and barking dogs, yelling newsvendors, and belated revellers singing *con brio* popular ditties. We for ourselves only implore the London County Council to persevere in its attempts to render life in London quiet.

## "FOR ONE SHILLING!"

*To the Editors of* THE LANCET.

SIRS,—I was much amused at Mr. Goodridge's letter in your issue of Jan. 14th and wonder where he has been living not to know that 1*s.* is the exact sum at which some members of our profession value their services, whether for examining a candidate for the "National Deposit Friendly Society" or for "efficient vaccination with calf lymph," or for "visit including medicine."

I am, Sirs, yours faithfully,

Millom, Jan. 21st, 1899. P. B. STONEY.

## THE COLOUR OF NEGRO BABIES.

THE correspondence in our columns about the colour of negro babies has attracted considerable attention and our original contention that the newly born negro baby was born a lighter colour than that which it afterwards develops is generally confirmed. Dr. Andrew Wilson, Ph.D., sends us the following letter which he has received:—

"Your paragraph on 'The Colour of Negro Babies' particularly drew my attention in the *Yorkshire Post* of Dec. 3rd, 1898, as I have had many opportunities of seeing the colour of the baby negroes in widely different peoples and in widely distant places. My first experience was in the Gold Coast Hinterland not very far from Kumasi when I was asked by a chief to see a young and favourite wife of his who was in difficulties. I found her surrounded by medicine men and tom-toms making a most deafening row. Modern science did in three minutes what native witchcraft had failed to do in three days. To my great surprise the child was *not* black, but a pinkish colour, and the mother and father were pure negroes of the Bantu type. Since then I have helped into the world small negroes in both East and West Africa and the Island of Zanzibar, all pinky white. I also find the new-born natives of Southern India and the Central Indian Deccan are almost white—creamy-pink, in fact. This colour gradually deepens and in two months after birth the new aspirant is chocolate brown, and so progresses by stages to the dark brown or deep brown (a negro is *never* black) of his forbears. Negroes born in America are not, I take it, in quite their normal climate, and live artificial lives, aping their white brethren, and so I consider it better and fairer to draw conclusions from the African source."

The fact that quite frequently negro babies are born of a considerably lighter hue than their parents and do not attain to their depth of colour for at least two or three months would thus seem fairly established.

## WANTED THE SENDER.

MESSRS. BURROUGHS, WELLCOME AND CO., of Snow Hill Buildings, E.C., write:—"Our firm recently received from Sydney a large packet of herbs which was put on board the *Thermopylæ*. It seems that no advice was received in reference to it, and it is not known from whom the parcel came. An attempt has been made to identify the plants, but without success. Probably they were dispatched for identification and investigation by a medical man or chemist who intended to write to us at the same time but failed to do so. As our firm is very anxious to get to the bottom of this matter, it has been suggested that perhaps you would kindly help us by inserting this in THE LANCET requesting the sender to communicate with us with reference to the packet."

## A NEW DISEASE.

*To the Editors of* THE LANCET.

SIRS,—Although there is a good deal to be learnt in Monte Carlo one can hardly expect it to be a centre of up-to-date medical knowledge, which we know is every month advancing by leaps and bounds, and this must be my excuse for asking you to allow me to make use of THE LANCET with a view to obtaining some information on, to me, a new disease which I have been lately called on to treat. I had a visit yesterday from an old patient who has just come out from England. She told me she had been advised to come to the south of France and had chosen Monte Carlo, because, of course, I have always told her I consider Monte Carlo the best climate on the Riviera. I may mention that this lady who does not give the ordinary observer the impression of being an invalid comes out every year and always comes under

medical advice—so she says. I asked her what she was complaining of and she told me she had been very well until lately but her husband had gone down to Leicestershire and not feeling well she had seen Dr. —— (mentioning a well-known specialist for women's diseases) who told her she was suffering from "golfer's womb." Now, sir, not thinking it desirable in the interest of my professsion to appear to be ignorant of the nature of this malady and at the same time thinking I might gain some information to guide me as to what it meant, I at once said "Oh, indeed! What form of the complaint have you?" She did not know but she added it was "the thing Dr. —— is so clever with." I was not sufficiently skilful to discover any definite cause for treatment. However, I tided over the difficulty without confusion by saying that these cases invariably do well in Monte Carlo and the rest and change of air would do all that was required. I also advised her not to play golf, and considering the nearest links are forty miles away she will probably follow my advice. Now, Sirs, you will I am sure sympathise with me in my isolated position, far from any centre of learning—we have not even a branch of the British Medical Association here. I have had to deal with racket wrist, lawn tennis elbow, and bicycle knee. I have generally been able to find lesion or evidence of rheumatism or after-effects without quarreling over terms, but I confess this golfer's womb is too much for me and my patient may call on me for more active treatment. If I turn to a modern work on uterine diseases I think it would be impossible to imagine a womb taking any twist or turn in any possible direction that a name has not already been provided for, and I may say the same for every gradation or variation of the congestive or inflammatory state. I can hardly suppose my patient invented this name and I shall be very much obliged if any of your readers can help me in this matter and tell me if this is a recognised form of disease and what special feature there is in it that is not already provided for by the ordinary gynæcological nosology. It may be one of those transatlanticisms bred of a lofty familiarity with the intricacies of obscure feminine disease and unconscious superiority to the beaten tract, but as a name it is deficient in precision and definiteness and not a little perplexing when suddenly presented for the first time to the common or garden general practitioner as is

Your obedient servant

Jan. 22nd. X. Y. Z.

*** Our correspondent clearly has his own opinion on the *bona fides* of the consulting gynæcologist in this particular case. We cannot follow him in his speculations. But we can and do protest against such a term as "golfer's womb," which can only be a source of confusion to medical men.—ED. L.

## THE LIVING WAGE.

*To the Editors of* THE LANCET.

SIRS,—To-day appears in the *Daily Chronicle* a report of an inquest in Lambeth at which strong comments were made on the conduct of a surgeon who was alleged to have given the deceased lax and insufficient attendance, to have been drunk, and to have been covering an unqualified chemist. I do not wish to quarrel with the censure of the coroner's court if these allegations were true. From the evidence of the principal witness, however, it appears that the fee paid was 2*s.* 6*d.*, which was, "she understood, for *four* visits." Surely the British public is getting very exacting: for 7½*d.* a visit they expect the services of a man qualified, registered, skilful, attentive, and sober. By the careful and systematic provision of gratuitous medical attendance for all and any of the inhabitants of our large towns who choose to apply for it, and by the liberal competition of cheap medical education we have long arrived at the result that the mass of the population regard 6*d.* as a good fee for well-trained professional services, but it seems straining the demand that for 1½*d.* advance on the standard fee the medical attendant should be expected to be sober.

I am, Sirs, yours faithfully,

Jan. 17th, 1899. HYPERCRITICAL.

## WANTED A "WEIR-MITCHELL INSTITUTION."

*To the Editors of* THE LANCET.

SIRS,—Can any of your readers recommend an institution where the Weir-Mitchell form of treatment is carried out under the *direct* supervision of a medical man and at a minimum cost?

I am, Sirs, yours faithfully,

Jan. 23rd, 1899. NEMO.

## SPONTANEOUS SURGERY.

A NOTABLE instance of spontaneous or accidental surgery is mentioned in last week's *Truth*. "At St. Moritz," says the writer of our contemporary's "Sporting Notes," "Mr. Edgington cut the record for an hour's skating under remarkable circumstances. At the thirty-first lap he was accidentally tripped by his pacer and fell, putting his shoulder out. He lost 18 secs. that lap. On the fiftieth lap he fell from pain and put his shoulder in again. He did 100 yards better than Lensberg. He covered 19 miles 348 yards, so that one may expect, with better pacing arrangements, that 20 miles will be covered in the hour. The record-holder's pluck was splendid." We should like to be told how and by whom the diagnosis of dislocation was established, in spite of the fact that all the time the undismayed athlete was continuing his exertions.

## THE TREATMENT OF SEPTIC CONDITIONS BY METALLIC SILVER.

THE *International Journal of Surgery* of New York for December, 1898, contains a eulogy of metallic silver in the colloid soluble state as an adjuvant to the treatment of septic conditions. Soluble metallic silver is termed a very promising addition to the practitioner's resources in the treatment of septic conditions. In the form of an ointment (strength 15 per cent.) it has been employed with success in acute and chronic septic infections by Wolfrom, Hale, Schirmer, and among others, Credé. This so-called unguentum Credé is regarded as a veritable specific in sepsis by O. Werler (*Deutsche Medicinische Wochenschrift*, No. 40, 1898), who reports a number of cases illustrating most graphically the efficiency of inunctions with this ointment in quickly arresting both local and general septic processes and describes 3 cases *in extenso*. The mode of action of this inunction treatment is probably, says the *International Journal of Surgery*, that the colloid silver being absorbed through the skin and entering the circulation gives rise to the formation of silver salts which exert a general internal antiseptic effect which is sufficiently powerful to destroy the organisms of infection without injuring the vitality of the tissues.

## A DIFFICULTY UNDER THE WORKMEN'S COMPENSATION ACT.

*To the Editors of* THE LANCET.

SIRS,—Has any uniform practice been adopted by the London hospitals in connexion with the examination of in-patients who are or may be claimants under this Act? Probably the majority go into hospital where they are attended by the staff. Then comes the employer's medical nominee, qualifying as a witness, applying to examine the claimant. This gentleman will usually be the medical officer attached to an insurance company. The house surgeons who received and subsequently attended the patient possibly see the chance of a fee coming their way for a report and evidence and they are reluctant—perhaps refuse—to admit the other, whose visit will at all events involve them in the trouble of a consultation, giving a history of the case since admission, &c., for which no charge can be made. What is to be done? If the outsider is admitted the house surgeons consider themselves deprived of a perquisite, whilst if admission is refused the poor patient may be held to "refuse to submit himself to such examination" or to "obstruct the same," in which case his right to compensation is "suspended until such examination takes place" (Schedule to Act, Par. 3). I am, Sirs, yours faithfully,

Jan. 18th, 1899. SOLICITOR.

*** The subject is an important one. We are not ready with an answer, lest it should be quoted in circumstances which it might not fit, but we hope at an early date to deal exhaustively with the matter.—ED. L.

## THE MEMBERS' GOWN.

*To the Editors of* THE LANCET.

SIRS,—It will be noted by many with regret that the authorities of the Royal College of Surgeons of England have seen fit to postpone *sine die* the consideration of the question of permitting Members to wear a distinctive gown. It is difficult to see on what grounds the authorities have come to this decision. If Fellows are permitted to wear a distinctive garb why should Members not have a similar privilege extended to them? The policy of ignoring the feelings and wishes of Members, both by non-recognition of a reasonable desire and excluding them from the franchise, is at strange variance with modern notions in connexion with institutions around us and compels us to look for a counterpart to their policy to the early institutions of Rome. Considering the large number of Members and the great financial support rendered by them, apart from other considerations, it will be, I submit, considered by unbiassed persons a most anomalous policy for a College to pursue in the nineteenth century.

I am, Sirs, yours faithfully,

FREDERICK W. COLLINGWOOD.

Bedford-place, Russell-square, Jan. 22nd, 1899.

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**During the week marked copies of the following newspapers have been received:** *Kenilworth Advertiser, Tyrone Constitution, Scotsman, Eastern Daily Press, Ayrshire Post, Leicester Daily Post, Glasgow Herald, Wigan Observer, Daylight, Public Opinion, Kensington News, Halifax Courier, Times of India, Pioneer Mail, Architect, Citizen, Todmorden Advertiser, Blackpool News, Folkestone Express, Coventry Daily Telegraph, Daily Mail, Builder, Evesham Standard, Herts Observer, Bradford Observer, Inventions, Eastbourne Chronicle, South Wales Daily News, Irish Times, Isle of Man Times, Brighton Gazette, Yorkshire Post, Bristol Mercury, Sanitary Record, Liverpool Daily Post, Kentish Mercury, City Press, Mining Journal, Hertfordshire Mercury, Reading Mercury, Local Government Chronicle, Llangollen Advertiser, Local Government Journal, Luton Reporter, Cambridge Express, Weekly Free Press and Aberdeen Herald, Bournemouth Guardian, Malvern News, Worcester Advertiser, Hereford Times, Dundee Advertiser, The Councillor and Guardian, Referee, Information Gazette, County Gentleman, Citizen (Gloucester), Rugby Times, Norfolk Standard, Leeds Mercury, Dublin Daily Express, &c., &c.*

## Communications, Letters, &c., have been received from—

**A.**—Mr. C. B. Ady, Lond.; Mr. C. Atkinson, Hanley; Apollinaris Co., Lond.; Messrs. Allen and Hanburys, Lond.; Amiral Soap Syndicate, Lond.; Messrs. Armour and Co., Lond.; Mr. E. B. M. Atkins, Pencold.

**B.**—Dr. J. B. Ball, Lond.; Mr. A. E. Barker, Lond.; Mr. T. Bell, Uppingham; Messrs. Burgoyne and Co., Lond.; Mr. C. G. Burton, Lond.; Mr. E. Blake, Lond.; Dr. D. Bower, Bedford; Mr. J. R. Broadbent, Culmstock; Mr. R. Stanmore Bishop, Manchester; Beeston Motor Co., Coventry; T. B. Browne, Ltd., Lond.; Mr. R. Burney-Young, Lond.; Mr. H. W. Battle, Warrington; Mr. A. Bullock, Buenos Ayres; Messrs. Battley and Watts, Lond.; Mr. T. W. W. Bovey, Buckfastleigh; Belfast District Asylum, Clerk of.

**C.**—Dr. Harry Campbell, Lond.; Dr. J. N. Cook, Calcutta; Chelsea Clinical Society, Hon. Secretary of; Mr. W. B. Cosens; Mr. N. Close, Chard; Messrs. Condy and Mitchell, Lond.; Messrs. E. Cook and Co., Lond.; Mr. W. P. Cox, Leicester; Mr. Watson Cheyne, Lond.; Dr. A. Cooper, Lond.; Coventry and Warwickshire Hospital, Coventry, Secretary of; Mr. Kenneth Cameron, Aberdeen; Mr. J. G. Clouston, Edinburgh; C. W.

**D.**—Dr. J. W. Dagleish, Bloemfontein; Mr. M. L. Dawson, Cambridge; Mr. A. Dunley-Owen, Enkeldoorn, Rhodesia; Drugs, Blackburn.

**E.**—Dr. William Ewart, Lond.; Dr. W. L. Ellis, St. John, Canada; Dr. G. Edington, Glasgow; Etablissement Thermal, Uriage, Director of.

**F.**—Mr. R. Fenner, Lond.; Dr. E. B. Forman, Lond.; Flower House, Catford, Medical Superintendent of; F. P.; Miss A. Frith, Lond.

**G.**—Dr. T. H. Gardner, Lond.; Messrs. Grindlay and Co., Lond.; G. de V. B.; Mr. W. S. Glyn-Jones, Lond.; Messrs. Godfrey and Cooke, Lond.

**H.**—Mr. W. H. Hubert, Billingshurst; Hovis Bread Flour Co., Macclesfield; Dr. S. H. Habershon, Lond.

**I.**—Institute of Chemistry of Great Britain and Ireland, Secretary of.

**J.**—Dr. L. Jenner, Lond.; Miss Julian, Lond.; Jenner Institute of Preventive Medicine, Lond., Secretary of; Mr. G. D. Johnston, Lond.; Mr. G. St. J. Jephson, Stapleton; J. H. D.; Dr. W. L. Jones, Blaenavon.

**K.**—Mr. Harman Keble, Margate; Mr. A. F. Stanley Kent, Lond.; Mr. C. Kidd, Bromsgrove; Mr. F. Kienast, Lond.

**L.**—Mr. A. W. W. Lea, Manchester; London Association of Nurses, Messrs. Lamb and Watt, Liverpool; Mr. R. W. Lloyd, Lond.; London Throat Hospital, Secretary to Medical Committee of; Dr. J. W. Leech.

**M.**—Dr. W. Milligan, Manchester; Herr E. Merck, Darmstadt; Mr. Mr. A. MacLennan, Glasgow; Mr. A. M. Martin, Newcastle-on-Tyne; Mr. J. M. Mitchell, Lond.; Mr. M. Macintosh, Lond.; Dr. A. Markwell, Bradford; Morpeth Dispensary, Secretary of; Messrs. J. Macmurtrie and Co., Glasgow; Meister Lucius and Bruning, Hoechst - on - Main; Medical Society of Victoria, Melbourne, Hon. Treasurer of; Dr. M.; Mr. B. Merck, Lond.; Medical Graduates' College, Lond., Hon. Secretary of; Maltine Manufacturing Co., Lond.; Messrs. Maple and Co., Lond.; Messrs. J. F. Macfarlan and Co., Lond.; Mr. A. Macbean, Kirkcudbright; Mr. H. Marmion, St. Heliers, Jersey; Mr. J. Milne, Lond.

**N.**—Dr. G. Norman, Buckhurst Hill; National Sanatorium for Consumption, &c., Bournemouth, Secretary of.

**P.**—Dr. E. Panaghiote, Lond.; Mr. Y. J. Pentland, Edinburgh; Messrs. Parke, Davis and Co., Lond.; Dr. C. E. Purslow, Birmingham; Poor-law Medical Officers' Association, Hon. Secretary of.

**R.**—Mr. E. J. Reid, Lond.; Dr. J. S. Risien Russell, Lond.; Mr. John Morgan Richards, Lond.; Mr. H. Thornhill Roxby; Rochford Union, Southend-on-Sea, Clerk of; R. C.; Messrs. Roberts and Co., Lond.; R. J.

**S.**—Mr. A. H. Smee, Carshalton; Mr. J. S. Sharman, Lond.; Dr. Max C. Starkloff, St. Louis; Dr. J. Smyth, Naas; Messrs. Street and Co., Piccadilly; Mr. C. Sullivan, Lond.; Society of Apothecaries of London, Secretary of; South Australian Government Bonded Depot, Lond., Manager of; Mr. F. E. C. Singleton, Glenelg, South Australia; Mons. G. Steinheil, Paris; Messrs. Squire and Sons, Lond.; Mr. E. D. Stangala, Cardiff; Dr. E. W. Sumpter Lynn.

**T.**—Dr. E. F. Trevelyan, Leeds; The Trusty Engine Works, Cheltenham, Secretary of; Torquay Medical Society, Hon. Secretary of; Teale Fire Place Co., Leeds; Tuborg Lager Beer Agency, Newcastle-on-Tyne; Dr. J. C. Thresh, Lond.; Mr. L. A. Tallerman, Lond.

**V.**—Mr. W. P. Van Wyk, Lond.; Dr. Vinrace, Lond.; Mr. M. Vinning, Plymouth.

**W.**—Mr. E. Weston, Sheffield; West End Pathological Laboratory, Lond., Secretary of; Wyleys, Ltd., Coventry; Messrs. R. F. White and Son, Lond.; Messrs. J. Wright and Co., Bristol.

## Letters, each with enclosure, are also acknowledged from—

**A.**—Dr. J. Althaus, Lond.; Alpha, Kidderminster; A. M.; Mr. R. R. Anderson, Fern Hill; A. E. P.; A. B., Cheltenham.

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